

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Decommissioning

December 2023

Revision 0

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1 INTRODUCTION

1.1 Overview

Woodside Energy Ltd and Woodside Energy Julimar Pty Ltd, referred to jointly as 'Woodside' hereafter, as Titleholders under the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth) (referred to as the Environment Regulations), proposes to undertake the following petroleum activities within Permit Areas WA-49-L, WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L and WA-52-L:

- Ongoing inspection, maintenance and repair (IMR) activities associated with 36 historical exploration wells.
- Permanent decommissioning, including removal of wellheads and associated infrastructure, of wells accepted as permanently abandoned (Table 1-4).

This activity will hereafter be referred to as the Petroleum Activities Program and forms the scope of this Environment Plan (EP). A detailed description of the activities is provided in Section 4. This EP has been prepared as part of the requirements under the Environment Regulations, as administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).

1.2 Purpose of the Environment Plan

In accordance with the objectives of the Environment Regulations, the purpose of this EP is to demonstrate:

- the potential environmental impacts and risks (planned (routine and non-routine) and unplanned) that may result from the Petroleum Activities Program are identified
- appropriate management controls are implemented to reduce impacts and risks to a level that is 'as low as reasonably practicable' (ALARP) and acceptable
- the Petroleum Activities Program is performed in a manner consistent with the principles of ecologically sustainable development (ESD) (as defined in Section 3A of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)).

This EP describes the process and resulting outputs of the risk assessment, whereby impacts and risks are managed accordingly.

The EP defines activity-specific environmental performance outcomes (EPOs), environmental performance standards (EPSs) and measurement criteria (MC). These form the basis for monitoring, auditing and managing the Petroleum Activities Program to be performed by Woodside and its contractors. The implementation strategy (derived from the decision support framework tools) specified within this EP provides Woodside and NOPSEMA with the required level of assurance that impacts and risks associated with the Petroleum Activities Program are reduced to ALARP and are acceptable.

1.3 Scope of the Environment Plan

The scope of this EP covers the activities that define the Petroleum Activities Program, as described in Section 4. The spatial boundary of the Petroleum Activities Program has been described and assessed using the Operational Areas. The Operational Areas define the spatial boundary of the Petroleum Activities Program and are further described in Section 4.4.

1.4 Environment Plan Summary

The North West Shelf (NWS) and Julimar Exploration Wellhead Decommissioning EP summary (Table 1-1) has been prepared from material provided in this EP, as required by Regulation 11(4).

Table 1-1: Environment Plan summary

EP summary material requirement	Relevant section of this EP containing EP summary material
The location of the activity	Section 4
A description of the receiving environment	Section 5
A description of the activity	Section 4
Details of the environmental impacts and risks	Section 7
The control measures for the activity	Section 7.7 and 7.8
The arrangements for ongoing monitoring of the titleholder’s environmental performance	Section 8.5
Response arrangements in the oil pollution emergency plan	Section 8.9
Consultation already undertaken and plans for ongoing consultation	Section 6
Details of the titleholder’s nominated liaison person for the activity	Section 1.6.2

1.5 Structure of the Environment Plan

The EP has been structured to reflect the process and requirements of the Environment Regulations, as outlined in **Table 1-2**.

Table 1-2: Environment Plan process phases, applicable Environment Regulations and relevant section of Environment Plan

Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
Regulation 10A(a): <i>is appropriate for the nature and scale of the activity</i>	Regulation 13: <i>Environmental Assessment</i> Regulation 14: <i>Implementation strategy for the environment plan</i> Regulation 16: <i>Other information in the environment plan</i>	The principle of ‘nature and scale’ applies throughout the EP	Section 2 Section 3 Section 4 Section 5 Section 6 Section 7 Section 8
Regulation 10A(b): <i>demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable</i>	Regulation 13(1)–13(7): 13(1) <i>Description of the activity</i> 13(2)(3) <i>Description of the environment</i> 13(4) <i>Requirements</i> 13(5)(6) <i>Evaluation of environmental impacts and risks</i> 13(7) <i>Environmental performance outcomes and standards</i>	Set the context (activity and existing environment) Define ‘acceptable’ (the requirements, the corporate policy, relevant persons) Detail the impacts and risks Evaluate the nature and scale	Section 1 Section 2 Section 3 Section 4 Section 5 Section 6 Section 7 Section 8
Regulation 10A(c): <i>demonstrates that the environmental impacts and risks of the activity will be of an acceptable level</i>	Regulation 16(a)–16(c): <i>A statement of the titleholder’s corporate environmental policy</i> <i>A report on all consultations between the titleholder and any relevant person</i>	Detail the control measures – ALARP and acceptable	

Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
<p>Regulation 10A(d): <i>provides for appropriate environmental performance outcomes, environmental performance standards and measurement criteria</i></p>	<p>Regulation 13(7): <i>Environmental performance outcomes and standards</i></p>	<p>Environmental Performance Outcomes Environmental Performance Standards Measurement Criteria</p>	<p>Section 6</p>
<p>Regulation 10A(e): <i>includes an appropriate implementation strategy and monitoring, recording and reporting arrangements</i></p>	<p>Regulation 14: <i>Implementation strategy for the environment plan</i></p>	<p>Implementation strategy, including:</p> <ul style="list-style-type: none"> • systems, practices and procedures • performance monitoring • Oil Pollution Emergency Plan (OPEP) and scientific monitoring • ongoing consultation 	<p>Section 8 Appendix D</p>
<p>Regulation 10A(f): <i>does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property within the meaning of the EPBC Act</i></p>	<p>Regulation 13 (1) to 13(3): 13(1) <i>Description of the activity</i> 13(2) <i>Description of the environment</i> 13(3) <i>Without limiting [Regulation 13(2)(b)], particular relevant values and sensitivities may include any of the following:</i> (a) <i>the world heritage values of a declared World Heritage property within the meaning of the EPBC Act;</i> (b) <i>the national heritage values of a National Heritage place within the meaning of that Act;</i> (c) <i>the ecological character of a declared Ramsar wetland within the meaning of that Act;</i> (d) <i>the presence of a listed threatened species or listed threatened ecological community within the meaning of that Act;</i> (e) <i>the presence of a listed migratory species within the meaning of that Act;</i> (f) <i>any values and sensitivities that exist in, or in relation to, part or all of:</i> (i) <i>a Commonwealth marine area within the meaning of that Act; or</i> (ii) <i>Commonwealth land within the meaning of that Act.</i></p>	<p>No activity, or part of the activity, undertaken in any part of a declared World Heritage property</p>	<p>Section 4 Section 5 Section 6</p>

Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
Regulation 10A(g): <i>(i) the titleholder has carried out the consultations required by Division 2.2A</i> <i>(ii) the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate</i>	Regulation 11A: <i>Consultation with relevant authorities, persons and organisations, etc</i> Regulation 16(b): <i>A report on all consultations between the titleholder and any relevant person</i>	Consultation in preparation of the EP	Section 6
Regulation 10A(h): <i>complies with the Act and the regulations</i>	Regulation 15: <i>Details of the Titleholder and liaison person</i> Regulation 16(c): <i>Details of all reportable incidents in relation to the proposed activity</i>	All contents of the EP must comply with the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)</i> and the Environment Regulations	Section 1.6 Section 8.9

1.6 Description of the Titleholder

Woodside is Titleholder for this activity, on behalf of the joint venture participants described in Table 1-3 below.

Table 1-3: Joint venture participants for relevant petroleum titles

Petroleum Titles	Joint Venture Participants
WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L WA-58-L, WA-1-L, WA-16-L and WA-52-L	Woodside Energy Ltd, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Woodside Energy (North West Shelf) Pty Ltd, Shell Australia Pty Ltd, Japan Australia LNG (MIMI) Pty Ltd, and CNOOC NWS Private Ltd
WA-49-L	Woodside Energy Julimar Pty Ltd, and KUFPEC Australia (Julimar) Pty Ltd

1.6.1 Details of Titleholder and Liaison Person

In accordance with Regulation 15 of the Environment Regulations, the titleholders and liaison person and arrangements for the notification of changes are detailed in the next subsections.

1.6.2 Titleholder

Woodside Energy Ltd and Woodside Energy Julimar Pty Ltd

11 Mount Street

Perth, Western Australia

T: 08 9348 4000

ACN: 63 005 482 986 (Woodside Energy Ltd)

ACN: 130 391 365 (Woodside Energy Julimar Pty Ltd)

1.6.3 Nominated Liaison Person

Andrew Winter

Corporate Affairs Manager

11 Mount Street

Perth, Western Australia

Telephone: 08 9348 4000

Email: feedback@woodside.com.au

1.6.4 Arrangements for Notifying Change

In accordance with Regulation 15(3) of the Environment Regulations, should the titleholder, titleholder's nominated liaison person, or the contact details for either change, then NOPSEMA will be notified in writing within two weeks or as soon as practicable.

1.7 Woodside Management System

The Woodside Management System (WMS) provides a structured framework of documentation to set common expectations governing how all employees and contractors at Woodside will work. Many of the standards presented in **Section 6** are drawn from the WMS documentation, which comprises four elements: compass and policies, expectations, processes and procedures, and guidelines, as outlined below (and illustrated in **Figure 1-1**).

- **Compass and Policies:** Set the enterprise-wide direction for Woodside by governing our behaviours, actions, and business decisions and ensuring we meet our legal and other external obligations.
- **Expectations:** Set essential activities or deliverables required to achieve the objectives of the Key Business Activities and provide the basis for developing processes and procedures.
- **Processes and Procedures:** Processes identify the set of interrelated or interacting activities that transforms inputs into outputs, to systematically achieve a purpose or specific objective. Procedures specify what steps, by whom, and when required to carry out an activity or a process.
- **Guidelines:** Provide recommended practice and advice on how to perform the steps defined in Procedures, together with supporting information and associated tools. Guidelines provide advice on how activities or tasks may be performed, information that may be taken into consideration, or, how to use tools and systems.

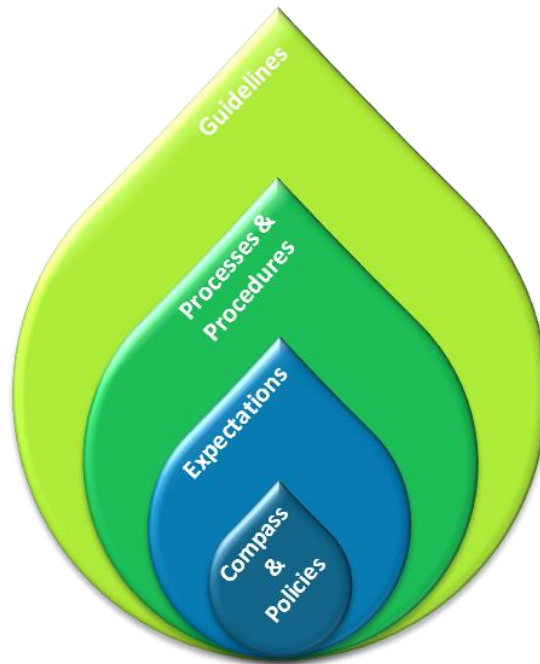


Figure 1-1: The four major elements of the Woodside Management System Seed

The WMS is organised within a business process hierarchy based upon key business activities to ensure the system remains independent of organisation structure, is globally applicable and scalable wherever required. These key business activities are grouped into management, support and value stream activities, as shown in Figure 1-2. The value stream activities capture, generate and deliver value through the exploration and production lifecycle. The management activities influence all areas of the business, while support activities may influence one or more value stream activities.

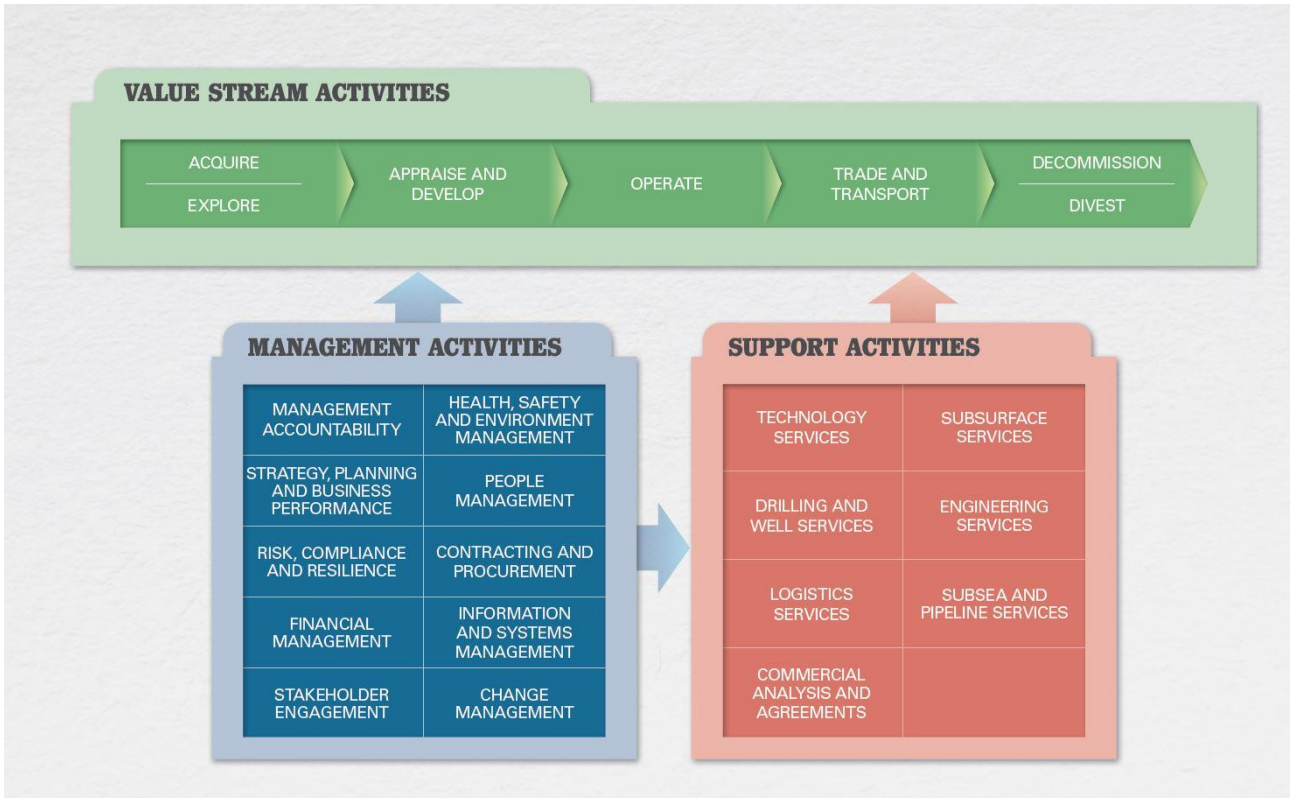


Figure 1-2: The Woodside Management System business process hierarchy

1.7.1 Environment and Biodiversity Policy

In accordance with Regulation 16(a) of the Environment Regulations, Woodside’s Corporate Environment and Biodiversity Policy is provided in Appendix A.

1.8 Description of Relevant Requirements

In accordance with Regulation 13(4) of the Environment Regulations, a description of requirements, including legislative requirements, that apply to the activity and are relevant to managing risks and impacts of the Petroleum Activities Program are detailed in Appendix B.

1.8.1 Applicable Environmental Legislation

1.8.1.1 Offshore Petroleum and Greenhouse Gas Storage Act 2006

The *Offshore Petroleum Greenhouse Gas Storage Act 2006 (Cth)* (OPGGGS Act) regulates petroleum exploration and production activities beyond three nautical miles (nm) of the mainland (and islands) to the outer extent of the Australian Exclusive Economic Zone at 200 nm.

Under subsection 572(3) of the OPGGS Act, a titleholder must remove from the title area all structures that are, and all equipment and other property that is neither used nor to be used in connection with the operations. Under subsection 572(7), property removal requirements are subject to any other provision of the OPGGS Act, the regulations, directions given by NOPSEMA or the responsible Commonwealth Minister, and any other law. Under subsection 270(3) of the OPGGS Act, before title surrender, all property brought into the surrender area must be removed to the satisfaction of NOPSEMA, or arrangements that are satisfactory to NOPSEMA must be made relating to the property.

Table 1-4 Table 1-4 is intended to inform requirements under subsection 270(3)(c), (e) and (f) and 572(2), (3) and (7) in relation to the exploration wellheads, to enable consent to be granted for application to surrender the titles once all petroleum activities have ceased in the future.

Table 1-4: Relevant requirements of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*

Section Number	Relevant Requirement	Relevant Section of the EP
Section 572 – Maintenance and removal of property etc. by titleholder		
572 (2)	A titleholder must maintain in good condition and repair all structures that are, and all equipment and other property that is: (a) in the title area; and (b) used in connection with the operations authorised by the permit, lease, licence or authority.	Table 4-4
572 (3)	A titleholder must remove from the title area all structures that are, and all equipment and other property that is, neither used nor to be used in connection with the operations: (a) in the title area; and (b) used in connection with the operations authorised by the permit, lease, licence or authority.	Refer to allowances under Section 270(3)
572 (7)	This section has effect subject to: (a) any other provision of this Act; and (b) the regulations; and (c) a direction given by NOPSEMA or the responsible Commonwealth Minister under: (i) Chapter 3; or (ii) this Chapter; and (d) any other law.	Not applicable – well infrastructure planned to be removed
Section 270 – Consent to surrender title		
270 (3)	The Joint Authority may consent to the surrender sought by the application only if the registered holder of the permit, lease or licence:	
	c) has: (i) to the satisfaction of NOPSEMA, removed or caused to be removed from the surrender area (defined by subsection (7)) all property brought into the surrender area by any person engaged or concerned in the operations authorised by the permit, lease or licence; or (ii) arrangements that are satisfactory to NOPSEMA in relation to that property; and	Section 4
	d) has, to the satisfaction of NOPSEMA, plugged or closed off all wells made in the surrender area by any person engaged or concerned in the operations authorised by the permit, lease or licence	Wellheads will only be removed once abandonment status has been accepted by NOPSEMA (or a prior Designated Authority (Section 4.7 and 7.6.1))
	e) has provided, to the satisfaction of NOPSEMA, for the conservation and protection of the natural resources in the surrender area; and f) has, to the satisfaction of NOPSEMA, made good any damage to the seabed or subsoil in the surrender area caused by any person engaged or concerned in the operations authorised by the permit, lease or licence;	Section 7.7.2 and 7.7.6

1.8.1.2 Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009

The Environment Regulations apply to petroleum activities in Commonwealth waters and are administered by NOPSEMA. The objective of the Environment Regulations is to ensure petroleum activities are performed in a manner:

- consistent with the principles of ecological sustainable development
- by which the environmental impacts and risks of the activity will be reduced to ALARP
- by which the environmental impacts and risks of the activity will be of an acceptable level.

1.8.1.3 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act aims to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places in Australia. These are defined in the EPBC Act as matters of national environmental significance (MNES). In respect to offshore petroleum activities in Commonwealth waters, these requirements are implemented by NOPSEMA through the Streamlining Offshore Petroleum Environmental Approvals Program (the Program). The Program provides for the protection of the environment by requiring all offshore petroleum activities authorised by the OPGGS Act to be conducted in accordance with an accepted EP, consistent with the principles of ESD. Impacts on the environment include those matters protected under Part 3 of the EPBC Act. The definition of 'environment' in the Program is consistent with that used in the EPBC Act, which enables the Program to encompass all matters protected under Part 3 of the EPBC Act.

1.8.1.3.1 Recovery Plans and Threat Abatement Plans

Under section 139(1)(b) of the EPBC Act, the Environment Minister must not act inconsistently with a recovery plan for a listed threatened species or ecological community or a threat abatement plan for a species or community protected under the Act. Similarly, under section 268 of the EPBC Act:

'A Commonwealth agency must not take any action that contravenes a recovery plan or a threat abatement plan.'

In respect to offshore petroleum activities in Commonwealth waters, these requirements are implemented by NOPSEMA via the commitments included in the Program. Commitments relating to listed threatened species and ecological communities under the Act are included in the Program Report (Commonwealth of Australia, 2014):

- NOPSEMA will not accept an Environment Plan that proposes activities which will result in unacceptable impacts to a listed threatened species or ecological community.
- NOPSEMA will not accept an Environment Plan that is inconsistent with a recovery plan or threat abatement plan for a listed threatened species or ecological community.
- NOPSEMA will have regard to any approved conservation advice in relation to a threatened species or ecological community before accepting an Environment Plan.

1.8.1.3.2 Australian Marine Parks

Under the EPBC Act, Australian Marine Parks (AMPs), formerly known as Commonwealth Marine Reserves, are recognised for conserving marine habitats and the species that live and rely on these habitats. The Director of National Parks (DNP) is responsible for managing AMPs (supported by Parks Australia) and is required to publish management plans for them. Other parts of the Australian Government must not perform functions or exercise powers relating to these parks that are inconsistent with management plans (section 362 of the EPBC Act). Relevant AMPs are described in Section 5.5. The North-west Marine Parks Network Management Plan (DNP, 2018) describes the requirements for managing the marine parks that are relevant to this EP.

Specific zones within the AMPs have been allocated conservation objectives as stated below (International Union for Conservation of Nature (IUCN) Protected Area Category) based on the Australian IUCN reserve management principles outlined in Schedule 8 of the EPBC Regulations 2000:

- Special Purpose Zone (IUCN category VI) – managed to allow specific activities through special purpose management arrangements while conserving ecosystems, habitats and native species. The zone allows or prohibits specific activities.
- Sanctuary Zone (IUCN category Ia) – managed to conserve ecosystems, habitats and native species in as natural and undisturbed a state as possible. The zone allows only authorised scientific research and monitoring.
- National Park Zone (IUCN category II) – managed to protect and conserve ecosystems, habitats and native species in as natural a state as possible. The zone only allows non extractive activities unless authorised for research and monitoring.
- Recreational Use Zone (IUCN category IV) – managed to allow recreational use, while conserving ecosystems, habitats and native species in as natural a state as possible. The zone allows for recreational fishing, but not commercial fishing.
- Habitat Protection Zone (IUCN category IV) – managed to allow activities that do not harm or cause destruction to seafloor habitats, while conserving ecosystems, habitats and native species in as natural a state as possible.
- Multiple Use Zone (IUCN category VI) – managed to allow ecologically sustainable use while conserving ecosystems, habitats and native species. The zone allows for a range of sustainable uses, including commercial fishing and mining, where they are consistent with park values.

1.8.1.3.3 World Heritage Properties

Australian World Heritage management principles are prescribed in Schedule 5 of the EPBC Regulations 2000. Management principles that are considered relevant to the scope of this EP are provided in Table 1-5.

Table 1-5: Relevant management principles under Schedule 5 – Australian World Heritage management principles of the Environment Protection and Biodiversity Conservation Act

Number	Principle	Relevant Section of the EP
3	<p>Environmental impact assessment and approval</p> <p>3.01 This principle applies to the assessment of an action that is likely to have a significant impact on the World Heritage values of a property (whether the action is to occur inside the property or not).</p> <p>3.02 Before the action is taken, the likely impact of the action on the World Heritage values of the property should be assessed under a statutory environmental impact assessment and approval process.</p> <p>3.03 The assessment process should:</p> <p>(a) identify the World Heritage values of the property that are likely to be affected by the action; and</p> <p>(b) examine how the World Heritage values of the property might be affected; and</p> <p>(c) provide for adequate opportunity for public consultation.</p> <p>3.04 An action should not be approved if it would be inconsistent with the protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.</p> <p>3.05 Approval of the action should be subject to conditions that are necessary to ensure protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.</p> <p>3.06 The action should be monitored by the authority responsible for giving the approval (or another appropriate authority) and, if necessary, enforcement action should be taken to ensure compliance with the conditions of the approval.</p>	<p>3.01 and 3.02: Assessment of significant impact on World Heritage values is included in Section 6. Principles are met by the submitted EP.</p> <p>3.03 (a) and (b): World Heritage values are identified in Section 5 and considered in the assessment of impacts and risks for the Petroleum Activity in Section 6.</p> <p>3.03 (c): Relevant stakeholder consultation and feedback received in relation to impacts and risks to the Ningaloo Coast and Shark Bay World Heritage Properties (which are both within the scope of this EP) are outlined in Section 6</p> <p>3.04, 3.05 and 3.06: Principles are considered to be met by the acceptance of this EP.</p>

Note that Section 1 – General Principles and 2 – Management Planning of Schedule 5 are not considered relevant to the scope of this EP and, therefore, have not been included.

2 ENVIRONMENT PLAN PROCESS

2.1 Overview

This section outlines the process Woodside follows to prepare the EP once an activity has been defined as a petroleum activity (refer Section 1.1). This includes a description of the environmental risk management methodology that is used to identify, analyse and evaluate risks to meet ALARP and acceptability requirements and to develop EPOs and EPSs. This section also describes Woodside's risk management methodologies applicable to implementation strategies applied during the activity.

Regulation 13(5) of the Environment Regulations requires environmental impacts and risks of the Petroleum Activities Program to be detailed and evaluated appropriate to the nature and scale of each impact and risk associated with the Petroleum Activities Program and potential emergency conditions. The objective of the risk assessment process, described in this section, is to identify the risks and associated impacts of an activity so they can be assessed, appropriate control measures applied to eliminate, control or mitigate the impact or risk to ALARP, then determine if the impact or risk level is acceptable.

Environmental impacts and risks include those directly and indirectly associated with the Petroleum Activities Program and include potential emergency and accidental events. This may include impacts and risks that are a result of the proposed activity but are not within Woodside's control.

Planned activities have the potential for inherent environmental impacts.

An environmental risk is an unplanned event with the potential for impact (termed risk 'consequence').

Herein, potential impacts from planned activities are termed 'impacts', and 'risks' are associated with unplanned events with the potential for impact (should the risk be realised), with such impacts termed potential 'consequence'.

2.2 Environmental Impact and Risk Management Methodology

Woodside recognises risk is inherent to its business and effectively managing risk is important to delivering on company objectives, success and continued growth. Woodside is committed to managing all risks proactively and effectively. The objective of Woodside's risk management system is to provide a consistent process for recognising and managing risks across its business. Achieving this objective includes ensuring risks consider impacts across the key areas of exposure: health and safety, environment, finance, reputation and brand, legal and compliance, and social and cultural. A copy of Woodside's Risk Management Policy is provided in Appendix A.

The environmental risk management methodology used in this EP is based on Woodside's Risk Management Procedure. This procedure aligns to industry standards such as international standard ISO 31000:2009. The WMS Risk Management Procedure, guidelines and tools provide guidance on specific techniques for managing risk, tailored for particular areas of risk within certain business processes. Procedures applied for environmental risk management include:

- Health, Safety and Environment Management Procedure
- Impact Assessment Procedure
- Process Safety Management Procedure.

The risk management methodology provides a framework to demonstrate the risks and impacts are continually identified, reduced to ALARP and assessed to be at an acceptable level, as required by the Environment Regulations. The key steps of Woodside's risk management process are shown in Figure 2-1. Each step and how it is applied to the scopes of this activity is described in Sections 2.4 to 2.11.

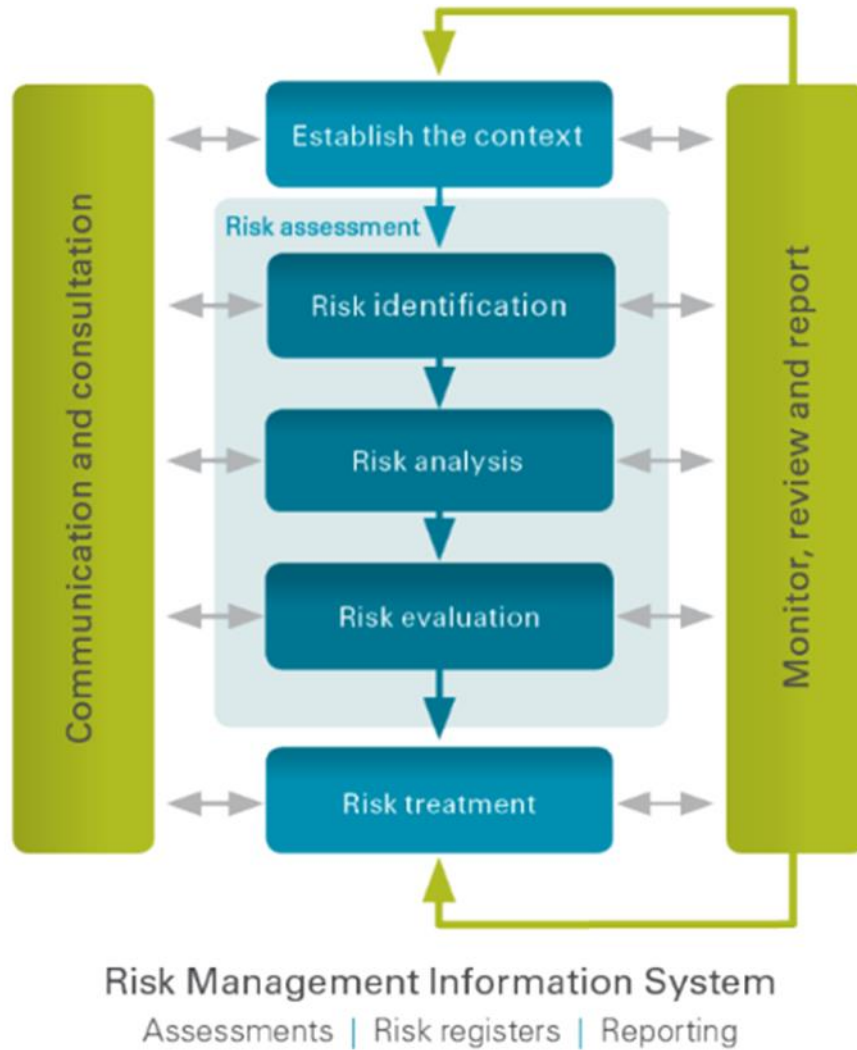


Figure 2-1: Woodside’s risk management process

2.2.1 Health, Safety and Environment Management Procedure

Woodside’s Health, Safety and Environment Management Procedure provides the structure for managing health, safety and environment (HSE) risks and impacts across Woodside. It defines the decision authorities for company-wide HSE management activities and deliverables, and supports continuous improvement in HSE management.

2.2.2 Impact Assessment Procedure

To support effective environmental risk assessment, Woodside’s Impact Assessment Procedure (Figure 2-2) provides the steps needed to meet required environment, health and social standards by ensuring impacts are assessed appropriate to the nature and scale of the activity, the regulatory context, the receiving environment, interests, concerns and rights of stakeholders, and the applicable framework of standards and practices.

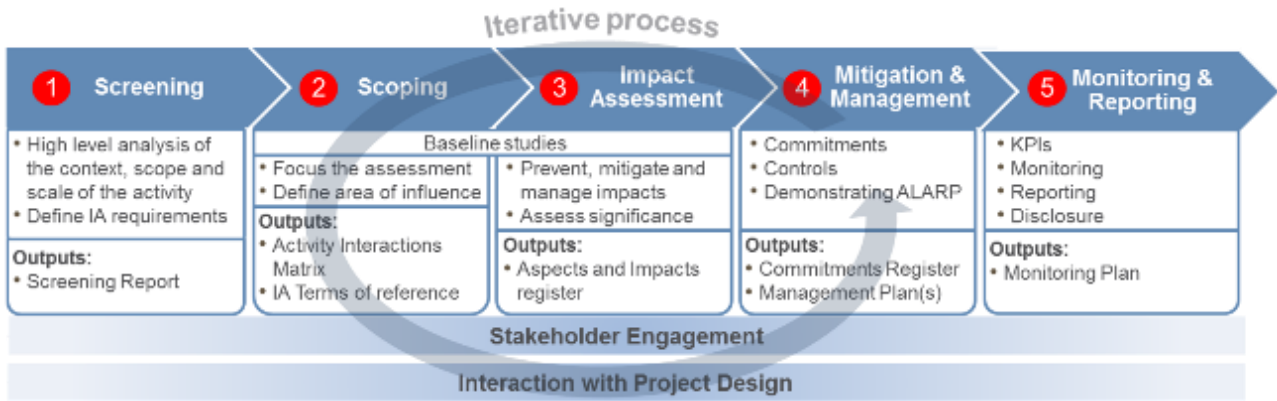


Figure 2-2: Woodside's impact assessment process

2.3 Environmental Plan Process

Figure 2-3 illustrates the EP development process. Each element of this process is discussed in Sections 2.4 to 2.11.

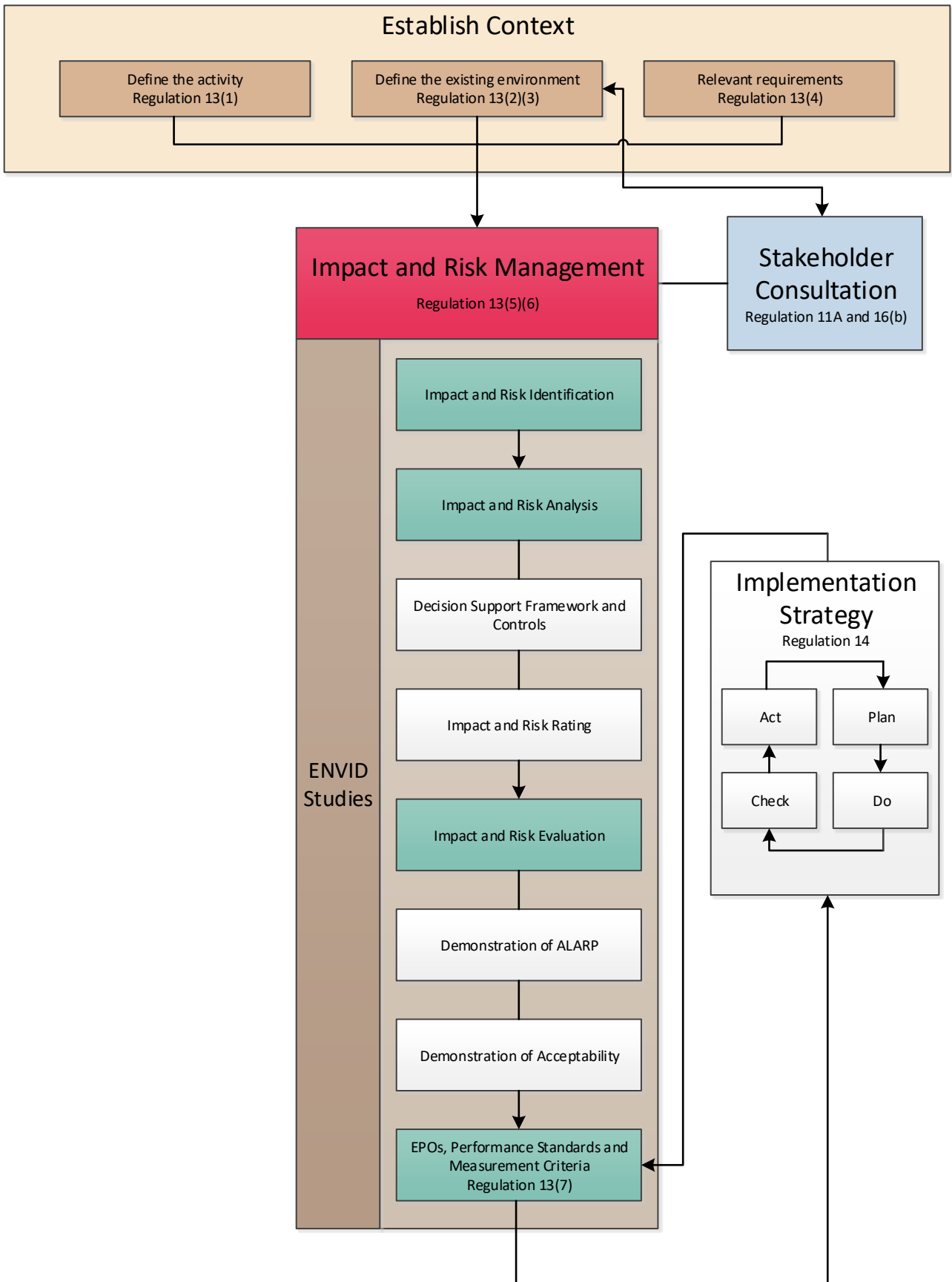


Figure 2-3: Environment Plan development process

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2.4 Establish the Context

2.4.1 Define the Activity

This first stage involves evaluating whether the activity meets the definition of a 'petroleum activity' as defined in the Environment Regulations.

The activity is then described in relation to:

- the location
- what is to be performed
- how it is planned to be performed, including outlining operational details of the activity and proposed timeframes.

The 'what' and 'how' are described in the context of 'environmental aspects' to inform the risk and impact assessment for planned (routine and non-routine) and unplanned (accidents, incidents and emergency conditions) activities.

The activity is described in Section 4 and referred to as the Petroleum Activities Program.

2.4.2 Defining the Existing Environment

The context of the existing environment is described and determined by considering the nature and scale of the activity (size, type, timing, duration, complexity and intensity of the activity), as described in Section 4. In accordance with Regulation 31(1) of the Environment Regulations, references to the Master Existing Environment, Appendix H in the Enfield Plug and Abandonment EP (hereafter referred to as the Master Existing Environment), have been made throughout this EP. The accepted EP (NOPSEMA EP No: 5632, ID: [A803388](#)) is available on the NOPSEMA website: [Enfield Plug and Abandonment EP » NOPSEMA](#). The purpose is to describe the existing environment that may be impacted by the activity, directly or indirectly, by planned or unplanned events.

The existing environment section (Section 5) is structured to define the physical, biological, socio-economic and cultural attributes of the area of interest, in accordance with the definition of 'environment' in Regulation 4(a) of the Environment Regulations. These subsections make particular reference to:

- The environmental, and social and cultural consequences as defined by Woodside (Table 2-1), which address key physical and biological attributes, as well as social and cultural values of the existing environment. These consequence definitions are applied to the impact and risk analysis (Section 2.6.2) and rated for all planned and unplanned activities. Additional detail is provided for evaluating unplanned hydrocarbon spill risk.
- EPBC Act MNES, including listed threatened species and ecological communities and listed migratory species. Defining the spatial extent of the existing environment is guided by the nature and scale of the Petroleum Activities Program (and associated sources of environmental risk). This considers the Operational Areas and wider environment that may be affected (EMBA), as determined by the hydrocarbon spill risk assessments presented in Section 7.8. MNES, as defined within the EPBC Act, are addressed through Woodside's impact and risk assessment (Section).
- Relevant values and sensitivities, which may include world or national Heritage-Listed areas, Ramsar wetlands, listed threatened species or ecological communities, listed migratory species, and sensitive values that exist in or in relation to Commonwealth marine area or land.

In categorising the environmental values potentially impacted by the Petroleum Activities Program (Table 2-1), there is standardisation of information relevant to understanding the receiving environment. Potential impacts to these environmental values are evaluated in the risk analysis

(Section 2.6), and risk-rated for all planned and unplanned activities. This provides a robust approach to the overall environmental risk evaluation and its documentation in the EP.

By grouping potentially impacted environmental values by aspect (Table 2-1), the presentation of information about the receiving environment is standardised. This information is then consistently applied to the risk evaluation section to provide a robust approach to the overall environmental risk evaluation and its documentation in the EP.

Table 2-1: Environmental values potentially impacted by the Petroleum Activities Program which are assessed within the Environment Plan

Environmental Value Potentially Impacted (Regulations 13(2)(3))					
Marine Sediment	Water Quality	Air Quality	Ecosystems/ Habitats	Species	Socio- Economic

2.4.3 Relevant Requirements

The relevant requirements in the context of legislation, other environmental approval requirements, conditions and standards that apply to the Petroleum Activities Program are identified and reviewed. Relevant requirements are presented in Appendix B and Section 1.

Woodside’s Environment and Biodiversity Policy is presented in Appendix A.

2.5 Impact and Risk Identification

Relevant environmental aspects and hazards are identified to support the process to define environmental impacts and risks associated with an activity.

The environmental impact and risk assessment presented in this EP has been informed by recent and historic hazard identification studies and workshops (for example, hazard identification/ environmental hazard identification [ENVID]), Process Safety Risk Assessment processes, reviews and associated desktop studies associated with the Petroleum Activities Program. Risks are identified based on planned and potential interaction with the activity (based on the description in Section 4), the existing environment (Section 5) and the outcomes of Woodside’s stakeholder engagement process (Section 6). The environmental outputs of applicable risk and impact workshops and associated studies are referred to as ‘ENVID’ hereafter in this EP.

An ENVID was completed for the Petroleum Activities Program to identify impacts and risks associated with both planned (routine and non-routine) activities and unplanned (accidents, incidents and emergency conditions) events during the Petroleum Activities Program. During this process, risks that were identified as not applicable (not credible) were removed from the assessment. This was done by defining the activity and identifying that an aspect was not applicable.

The impact and risk information was then classified, evaluated and tabulated for each planned activity and unplanned event. Environmental impacts and risk were recorded in an environmental impacts and risk register. The output of the ENVID was used to present the risk assessment and formed the basis to develop EPOs, EPSs and MC. This information is presented in Section 7, using the format presented in Table 2-2.

Table 2-2: Example of layout of identification of risks and impacts in relation to risk sources

Source of Risk	Evaluation											
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/Habitat	Species	Socioeconomic	Decision Type	Consequence / Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability
Summary of source of impact/risk												

2.6 Impact and Risk Analysis

Risk analysis further develops the understanding of a risk by defining the impacts and assessing appropriate controls. The risk analysis considers previous risk assessments for similar activities, reviews of relevant studies, reviews of past performance, external stakeholder consultation feedback and a review of the existing environment.

The key steps performed for each risk identified during the risk assessment are to:

- identify the decision type in accordance with the decision support framework
- identify appropriate control measures (preventative and mitigative) aligned with the decision type
- assess the risk rating or impact.

2.6.1 Decision Support Framework

To support the risk assessment process and Woodside’s determination of acceptability (Section 2.7.2), Woodside’s HSE risk management procedures include using a decision support framework based on principles set out in the Guidance on Risk Related Decision Making (Oil and Gas UK, 2014). This concept is applied during the ENVID, or equivalent preceding processes during historical design decisions, to determine the level of supporting evidence that may be required to draw sound conclusions about risk level and whether the risk is ALARP and acceptable. This is to confirm:

- activities do not pose an unacceptable environmental risk
- appropriate focus is placed on activities where the risk is anticipated to be acceptable and demonstrated to be ALARP
- appropriate effort is applied to manage risks based on the uncertainty of the risk, the complexity and risk rating (as in, potential higher order environmental impacts are subject to further evaluation and assessment).

The framework provides appropriate tools, commensurate to the level of uncertainty or novelty associated with the risk (referred to as Decision Type A, B or C). The decision type is selected based on an informed discussion about the uncertainty of the risk and documented in ENVID output.

This framework enables Woodside to appropriately understand a risk and determine if the risk is acceptable and can be demonstrated to be ALARP.

2.6.1.1 Decision Type A

Risks classified as a Decision Type A are well understood and established practice. They generally consider recognised good industry practice, which is often embodied in legislation, codes and standards, and use professional judgement.

2.6.1.2 Decision Type B

Risks classified as Decision Type B typically involve greater uncertainty and complexity (and can include potential higher order impacts and risks). These risks may deviate from established practice or have some lifecycle implications, and therefore require further engineering risk assessment to support the decision and ensure the risk is ALARP. Engineering risk assessment tools may include:

- risk-based tools such as cost-based analysis or modelling
- consequence modelling
- reliability analysis
- company values.

2.6.1.3 Decision Type C

Risks classified as a Decision Type C typically have significant risk related to environmental performance. Such risks typically involve greater complexity and uncertainty; therefore, requiring adoption of a precautionary approach. The risks may result in significant environmental impact, significant project risk and exposure, or may elicit stakeholder concerns. For these risks, in addition to Decision Type A and B tools, company and societal values need to be considered by performing broader internal and external stakeholder consultation as part of the risk assessment process.

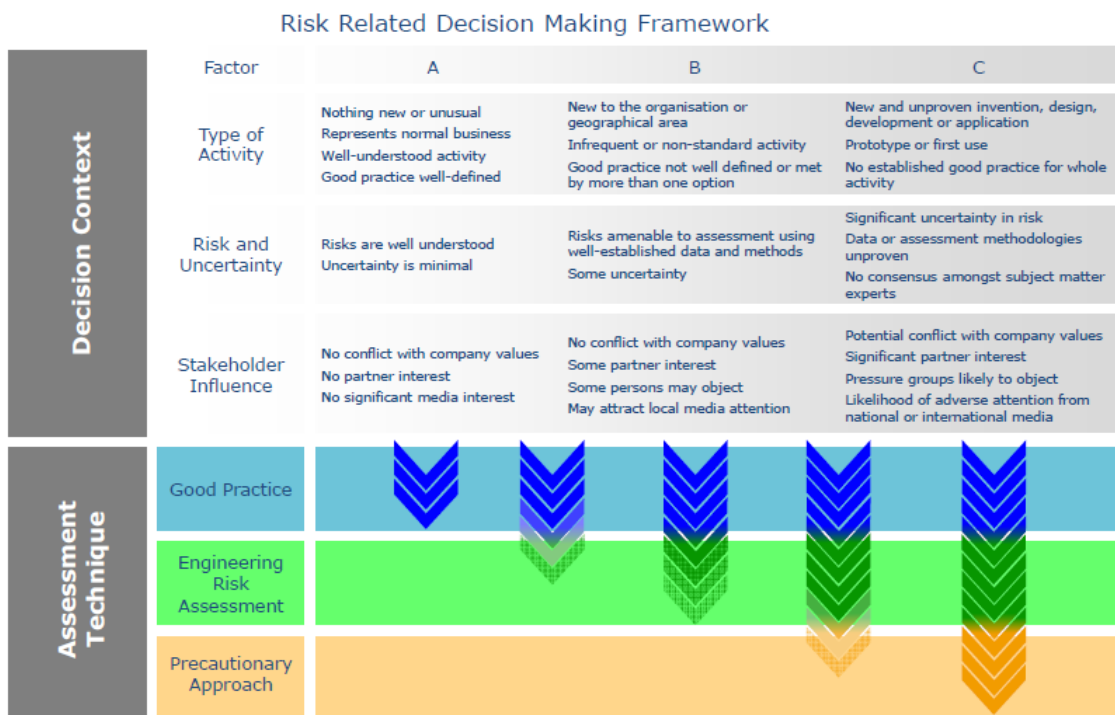


Figure 2-4: Risk-related decision-making framework (Oil and Gas UK, 2014)

2.6.2 Decision Support Framework Tools

The following framework tools are applied, as appropriate, to help identify control measures based on the decision types described above:

- **Legislation, Codes and Standards (LCS):** identifies the requirements of legislation, codes and standards that are to be complied with for the activity.
- **Good Industry Practice (GP):** identifies further engineering control standards and guidelines that may be applied by Woodside above that required to meet the LCS.

- **Professional Judgement (PJ):** uses relevant personnel with the knowledge and experience to identify alternative controls. Woodside applies the hierarchy of control as part of the risk assessment to identify any alternative measures to control the risk.
- **Risk-based Analysis (RBA):** assesses the results of probabilistic analyses such as modelling, quantitative risk assessment and/or cost–benefit analysis to support the selection of control measures identified during the risk assessment process.
- **Company Values (CV):** identifies values identified in Woodside’s code of conduct, policies and the Woodside Compass. Views, concerns and perceptions are to be considered from internal Woodside stakeholders directly affected by the planned impact or potential risk.
- **Societal Values (SV):** identifies the views, concerns and perceptions of relevant stakeholders and addresses relevant stakeholder views, concerns and perceptions.

2.6.2.1 Decision Calibration

To determine that alternatives selected and the control measures applied are suitable, the following tools may be used for calibration (as in, checking) where required:

- Legislation, Codes and Standards/Verification of Predictions – verification of compliance with applicable LCS or good industry practice.
- Peer Review – independent peer review of PJs, supported by RBA, where appropriate.
- Benchmarking – where appropriate, benchmarking against a similar facility or activity type or situation that has been accepted to represent acceptable risk.
- Internal Stakeholder Consultation – consultation performed within Woodside to inform the decision and verify CVs are met.
- External Stakeholder Consultation – consultation performed to inform the decision and verify SVs are considered.

Where appropriate, additional calibration tools may be selected specific to the decision type and the activity.

2.6.2.2 Control Measures (Hierarchy of Controls)

Risk reduction measures are prioritised and categorised in accordance with the hierarchy of controls, where risk reduction measures at the top of the hierarchy take precedence over risk reduction measures further down:

- Elimination of the risk by removing the hazard.
- Substitution of a hazard with a less hazardous one.
- Engineering Controls include design measures to prevent or reduce the frequency of the risk event, or detect or control the risk event (limiting the magnitude, intensity and duration) such as:
 - Prevention: design measures that reduce the likelihood of a hazardous event occurring.
 - Detection: design measures that facilitate early detection of a hazardous event.
 - Control: design measures that limit the extent/escalation potential of a hazardous event.
 - Mitigation: design measures that protect the environment if a hazardous event occurs.
 - Response Equipment: design measures or safeguards that enable clean-up and response after a hazardous event occurs.

- Procedures and Administration includes management systems and work instructions used to prevent or mitigate environmental exposure to hazards.
- Emergency Response and Contingency Planning includes methods to enable recovery from the impact of an event (for example, protection barriers deployed near the sensitive receptor).

2.6.3 Impact and Risk Classification

Environmental impacts and risks are assessed to determine their potential significance or consequence. The impact significance or consequence considers the magnitude of the impact or risk and the sensitivity of the potentially impacted receptor (represented by Figure 2-5).

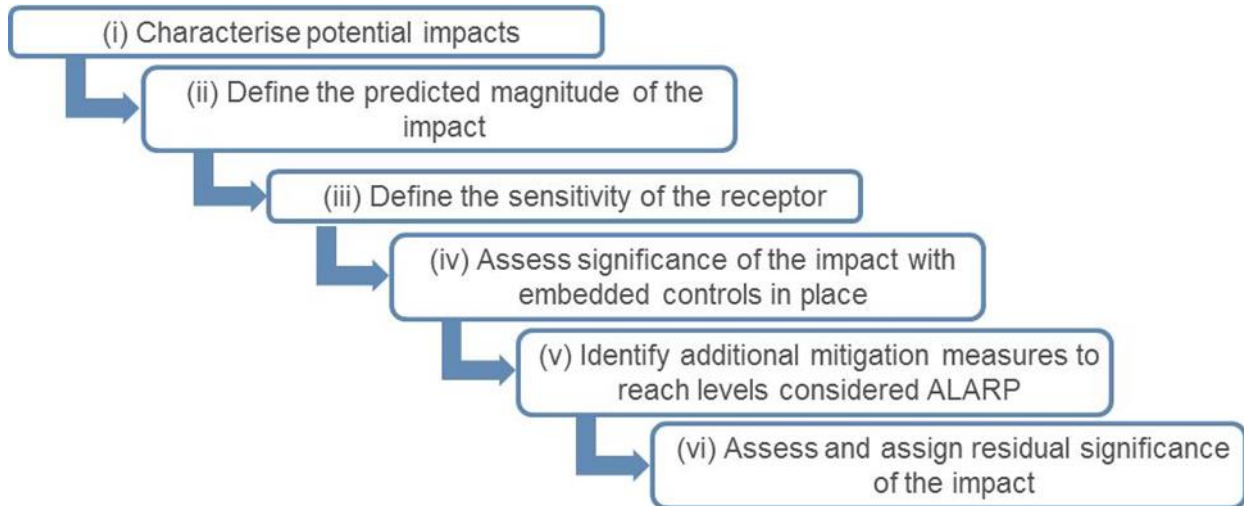


Figure 2-5: Environmental impact and risk analysis

Impacts are classified in accordance with the consequence (Section 2.6.3) outlined in the Woodside Risk Management Procedure and risk matrix.

Risks are assessed qualitatively and quantitatively in terms of both likelihood and consequence in accordance with the Woodside Risk Management Procedure and risk matrix.

The impact and risk information is summarised, including classification, and evaluation information, as shown in the example in Table 2-2, evaluated for each planned activity and unplanned event.

Table 2-3: Woodside risk matrix (environment and social and cultural) consequence descriptions

Environment	Social and Cultural	Consequence Level
Catastrophic, long-term impact (more than 50 years) on highly valued ecosystems, species, habitat or physical or biological attributes	Catastrophic, long-term impact (more than 20 years) to a community, social infrastructure or highly valued areas/items of international cultural significance	A
Major, long-term impact (ten to 50 years) on highly valued ecosystems, species, habitat or physical or biological attributes	Major, long-term impact (five to 20 years) to a community, social infrastructure or highly valued areas/items of national cultural significance	B
Moderate, medium-term impact (two to ten years) on ecosystems, species, habitat or physical or biological attributes	Moderate, medium term Impact (two to five years) to a community, social infrastructure or highly valued areas/items of national cultural significance	C
Minor, short-term impact (one to two years) on species, habitat (but not	Minor, short-term impact (one to two years) to a community or highly valued areas/items of cultural significance	D

affecting ecosystems function), physical or biological attributes		
Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes	Slight, short-term impact (less than one year) to a community or areas/items of cultural significance	E
No lasting effect (less than one month); localised impact not significant to environmental receptors	No lasting effect (less than one month); localised impact not significant to areas/items of cultural significance	F

2.6.4 Risk Rating Process

The risk rating process is performed to assign a level of risk to each risk event, measured in terms of consequence and likelihood. The assigned risk level is therefore determined after identifying the decision type and appropriate control measures.

The risk rating process considers the potential environmental consequences and, where applicable, the social and cultural consequences of the risk. The risk ratings are assigned using the Woodside risk matrix (Figure 2-6).

The risk rating process is performed using the steps described in Sections 2.6.4.1 to 2.6.4.3.

2.6.4.1 Select the Consequence Level

Determine the worst-case credible consequence associated with the selected event, assuming all controls (preventative and mitigative) are absent or have failed (Table 2-3). Where more than one potential consequence applies, select the highest severity consequence level.

2.6.4.2 Select the Likelihood Level

Determine the description that best fits the chance of the selected consequence occurring, assuming reasonable effectiveness of the preventative and mitigative controls (Table 2-4).

Table 2-4: Woodside risk matrix likelihood levels

Likelihood Description						
Frequency	1 in 100,000 to 1,000,000 years	1 in 10,000 to 100,000 years	1 in 1000 to 10,000 years	1 in 100 to 1,000 years	1 in 10 to 100 years	>1 in 10 years
Experience	Remote: Unheard of in the industry	Highly Unlikely: Has occurred once or twice in the industry	Unlikely: Has occurred many times in the industry but not at Woodside	Possible: Has occurred once or twice in Woodside or may possibly occur	Likely: Has occurred frequently at Woodside or is likely to occur	Highly Likely: Has occurred frequently at the location or is expected to occur
Likelihood Level	0	1	2	3	4	5

2.6.4.3 Calculate the Risk Rating

The risk level is derived from the consequence and likelihood levels determined above in accordance with the risk matrix shown in Figure 2-6. A likelihood and risk rating is only applied to environmental risks using the Woodside risk matrix.

This risk level is used as an input into the risk evaluation process and ultimately for prioritising further risk reduction measures. Once each risk is treated to ALARP, the risk rating articulates the ALARP baseline risk as an output of the ENVID studies.

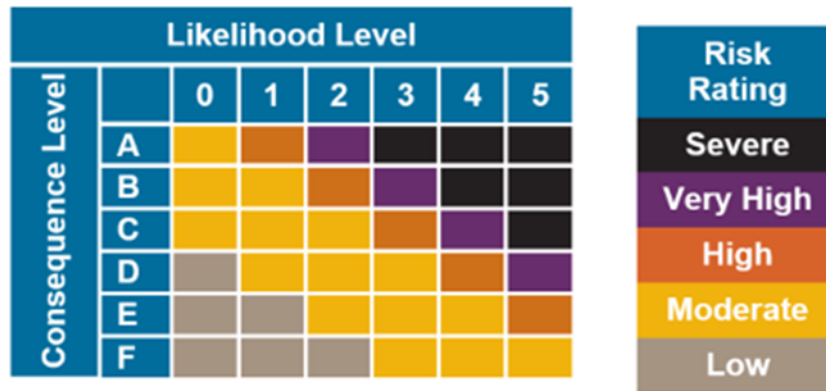


Figure 2-6: Woodside risk matrix – risk level

To support ongoing risk management (a key component of Woodside’s Process Safety Management Framework – refer to the implementation strategy in Section 8), Woodside uses the concept of ‘current risk’ and applies a current risk rating to indicate the current or ‘live’ level of risk, considering the controls that are currently in place and regularly effective. Current risk rating is effective in articulating potential divergence from baseline risk, such as if certain controls fail or could potentially be compromised. Current risk ratings aid in the communication and visibility of the risk events, and ensures risk is continually managed to ALARP by identifying risk reduction measures and assessing acceptability.

2.7 Impact and Risk Evaluation

Environmental impacts and risks cover a wider range of issues, differing species, persistence, reversibility, resilience, cumulative effects and variability in severity than safety risks. Determining the degree of environmental risk, and the corresponding threshold for whether a risk or impact has been reduced to ALARP and is acceptable, is evaluated to a level appropriate to the nature and scale of each impact or risk. Evaluation includes considering the:

- decision type
- principles of ESD – as defined under the EPBC Act
- internal context – ensuring the proposed controls and risk level are consistent with Woodside policies, procedures and standards (Section 7 and Appendix A)
- external context – the environment consequence (Section 7) and stakeholder acceptability (Section 6)
- other requirements – ensuring the proposed controls and risk level are consistent with national and international standards, laws and policies.

In accordance with Environment Regulations 10A(a), 10A(b), 10A(c) and 13(5)(b), Woodside applies the process described in the next subsections to demonstrate ALARP and acceptability for environmental impacts and risks, appropriate to the nature and scale of each impact or risk.

2.7.1 Demonstration of As Low As Reasonably Practicable

Descriptions have been provided in Table 2-5 to articulate how Woodside demonstrates different risks, impacts and decision types identified within the EP are ALARP.

Table 2-5: Summary of Woodside’s criteria for as low as reasonably practicable demonstration

Risk	Impact	Decision Type
<i>Low and Moderate (below C level consequences)</i>	<i>Negligible, Slight, or Minor (D, E or F)</i>	<i>A</i>
Woodside demonstrates these risks, impacts and decision types are reduced to ALARP if: <ul style="list-style-type: none"> controls identified meet legislative requirements, industry codes and standards, applicable company requirements and industry guidelines further effort towards impact/risk reduction (beyond employing opportunistic measures) is not reasonably practicable without sacrifices grossly disproportionate to the benefit gained. 		
<i>High, Very High or Severe (C+ consequence risks)</i>	<i>Moderate and above (A, B or C)</i>	<i>B and C</i>
Woodside demonstrates these higher order risks, impacts and decision types are reduced to ALARP (where it can be demonstrated using good industry practice and risk-based analysis) that: <ul style="list-style-type: none"> legislative requirements, applicable company requirements and industry codes and standards are met societal concerns are accounted for the alternative control measures are grossly disproportionate to the benefit gained. 		

2.7.2 Demonstration of Acceptability

Descriptions have been provided in Table 2-6 to articulate how Woodside demonstrates that different risks, impacts and decision types identified within the EP are acceptable.

Table 2-6: Summary of Woodside’s criteria for acceptability

Risk	Impact	Decision type
<i>Low and moderate</i>	<i>Negligible, slight, or minor (D, E or F)</i>	<i>A</i>
Woodside demonstrates these lower order risks, impacts and decision types are 'Broadly Acceptable' if they meet: <ul style="list-style-type: none"> legislative requirements industry codes and standards applicable company requirements and where further effort towards reducing risk (beyond employing opportunistic measures) is not reasonably practicable without sacrifices grossly disproportionate to the benefit gained.		
<i>High, very high or severe</i>	<i>Moderate and above (A, B or C)</i>	<i>B and C</i>
Woodside demonstrates these higher order risks, impacts and decision types are 'Acceptable' if it can be demonstrated that the predicted levels of impact and residual risk, are: <ul style="list-style-type: none"> managed to ALARP (as described in Section 2.7.1) and: meet the following criteria, appropriate to the nature and scale of each impact and risk: <ul style="list-style-type: none"> Impact/risk does not contravene relevant principles of ESD, as defined under the EPBC Act. Internal context – the proposed controls and consequence/risk level are consistent with Woodside policies, procedures and standards. External context – stakeholder expectations and feedback have been considered (Section 6). Other requirements – the proposed controls and consequence/risk level are consistent with national and international industry standards, laws and policies, and applicable plans for management and conservation advices, conventions, and significant impact guidelines (e.g. for MNES) have been considered. Where there are significant complexities in assessing and managing impacts to different receptors and for demonstrating how these impacts are acceptable (for example, significant stakeholder concern for specific receptors, lack of consensus of appropriate controls or standards), acceptability may be demonstrated separately for key receptors. This is not applicable for risks, given the consequence of an unplanned risk event occurring may not be acceptable and, therefore, acceptability is demonstrated in the context of the residual likelihood of an event occurring.		

2.8 Recovery Plan and Threat Abatement Plan Assessment

To support the demonstration of acceptability, a separate assessment is undertaken to demonstrate the EP is not inconsistent with any relevant recovery plans or threat abatement plans (refer Section 1.8.1.3.1). The steps in this process are to:

- Identify relevant listed threatened species and ecological communities (Section 5.3)
- Identify relevant recovery plans and threat abatement plans (Master Existing Environment, Section 7.9)
- List all objectives and (where relevant) the action areas of these plans and assess whether these objectives and action areas apply to government, the Titleholder and the Petroleum Activities Program (Section 7.9)
- For those objectives and action areas applicable to the Petroleum Activities Program, identify the relevant actions of each plan, and evaluate whether impacts and risks resulting from the activity are clearly not inconsistent with that action (Section 7.9).

2.9 Environmental Performance Outcomes, Standards and Measurement Criteria

EPOs, EPSs and MC have been defined to address the potential environmental impacts and risks and are presented in Section 7.

2.10 Implementation, Monitoring, Review and Reporting

The implementation strategy describes the specific measures and arrangements to be implemented for the duration of the EP (Section 8). The strategy is based on the principles of AS/NZS ISO 14001 Environmental Management Systems, and demonstrates:

- Control measures are effective in reducing the environmental impacts and risks of the Petroleum Activities Program to ALARP and acceptable levels
- EPOs and EPSs set out in the EP are met through monitoring, recording, auditing, managing non-conformance, and reviewing
- All environmental impacts and risks of the Petroleum Activities Program are periodically reviewed in accordance with Woodside's risk management procedures
- Roles and responsibilities are clearly defined, and personnel are competent and appropriately trained to implement the requirements set out in this EP, including in emergencies or potential emergencies
- Arrangements are in place for oil pollution emergencies, to respond to and monitor impacts
- Environmental reporting requirements are met, including 'reportable incidents'
- Appropriate stakeholder consultation is undertaken throughout the activity.

2.11 Stakeholder Consultation

Woodside undertakes consultation in the course of preparing EPs. The consultation, along with the process for ongoing engagement and consultation throughout the activity, is presented in Section 6. A copy of the full text correspondence is provided in Appendix F.

3 DECOMMISSIONING OPTIONS ASSESSMENT

A decommissioning options assessment was undertaken on the NWS and Julimar exploration wellheads to determine the most suitable arrangements for decommissioning the infrastructure, as set out in sections 572 and 270 of the OPGGS Act. The options assessment determined that the preferred decommissioning method was removal. Since removal is captured under 572(3), no additional information has been provided in this EP.

4 DESCRIPTION OF THE ACTIVITY

4.1 Overview

This section has been prepared in accordance with Regulation 13(1) of the Environment Regulations, and describes the activity to be undertaken as part of the Petroleum Activities Program under this EP.

4.2 Petroleum Activities Program Overview

An overview of the Petroleum Activities Program is provided in Table 4-1.

Table 4-1: Petroleum Activities Program overview

Item	Description
Petroleum Title	Twelve petroleum titles: WA-49-L, WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L Further details of wellheads within each petroleum title is provided in Table 4-4
Number of wellheads	Thirty-six, further details are provided in Table 4-2 and Table 4-4
Vessels	<ul style="list-style-type: none"> Offshore support vessel such as an inspection, maintenance and repair vessel or semisubmersible heavy well intervention vessel Potential for additional general support vessel
Key activities	<ul style="list-style-type: none"> Inspection, maintenance and repair (IMR) activities may be conducted for some or all wells, including logging activities to identify the presence and extent of hydrocarbons in the well annuli (Section 4.11). Installation of environment plug for three wells with NWBM remaining in the annulus. Removal and recovery of well infrastructure, including wellheads, guide bases and other infrastructure above the mudline, to allow for permanent abandonment of wells accepted as abandoned.

4.3 Location

The six Julimar wellheads are located within Petroleum title WA-49-L in Commonwealth waters, with Julimar South East-1 (the closest wellhead to landfall) located approximately 170 km north-west and north of Dampier and Onslow towns, respectively (Figure 4-1). The wellheads occur in depths ranging from 135 m (Balnaves Deep-1) to 177 m (Grange-1-WA).

The NWS wellheads are located within eleven petroleum titles (detailed in Table 4-2) in Commonwealth waters, with Madeleine-1 (the closest wellhead to landfall) located approximately 117 km north of Dampier town. The 30 NWS wellheads occur in depths ranging from 69 m (Angel-3 and Madeleine-1) to 133 m (Goodwyn-2).

Details of the well locations and water depths are provided in Table 4-2.

Table 4-2: Location details for the Petroleum Activities Program, including all relevant infrastructure

Wellhead name	Year drilled	Water depth (m LAT) ¹	Height of wellhead (m)	Latitude (WGS84)	Longitude (WGS84)
Balnaves Deep-1	2011	135	3	20° 04' 58.213" S	115° 10' 34.192" E
Brulimar-1	2007	171	2.8	20° 00' 18.265" S	115° 11' 04.989" E
Brunello-1ST1	2007	151	2.4	20° 03' 16.247" S	115° 10' 25.273" E
Grange-1-WA	2008	177	2.2	20° 05' 06.37" S	115° 05' 08.37" E

¹ Lowest astronomical tide

Wellhead name	Year drilled	Water depth (m LAT) ¹	Height of wellhead (m)	Latitude (WGS84)	Longitude (WGS84)
Julimar South East-1	2008	156	2.3	20° 09' 70.04" S	115° 03' 58.88" E
Julimar East-1	2007	171	3	20° 06' 23.21" S	115° 05' 07.97" E
Angel-1	1971	80	4	19° 30' 14.901" S	116° 35' 52.544" E
Angel-2	1972	87	2.5	19° 27' 53.638" S	116° 39' 29.501" E
Angel-3	1973	69	4.5	19° 32' 26.031" S	116° 37' 47.254" E
Cossack-1	1989	82	4.5	19° 33' 17.129" S	116° 29' 50.555" E
Cossack-6ST1	2005	79	4.5	19° 34' 2.127" S	116° 29' 25.228" E
Madeleine-1	1969	69	4.5	19° 38' 56.551" S	116° 21' 50.299" E
Walcott-1	1979	81	4.5	19° 37' 0.030" S	116° 22' 21.418" E
Wanaea-4	1992	75	3	19° 37' 47.635" S	116° 23' 48.432" E
Dockrell-1	1973	110	4.5	19° 47' 11.791" S	115° 46' 51.527" E
Goodwyn-1	1971	126	4	19° 41' 33.489" S	115° 53' 49.169" E
Goodwyn-2	1972	133	4.5	19° 39' 47.736" S	115° 51' 56.302" E
Goodwyn-3	1972	120	4.5	19° 44' 5.487" S	115° 52' 47.425" E
Goodwyn-4	1973	130	4.5	19° 41' 33.147" S	115° 50' 58.763" E
Goodwyn-5	1978	128	4.5	19° 40' 37.089" S	115° 53' 49.806" E
Goodwyn-6	1981	124	4.5	19° 43' 19.078" S	115° 51' 16.964" E
Tidepole-1	1975	110	4.5	19° 46' 3.442" S	115° 53' 12.382" E
Rankin-1	1971	93	4	19° 47' 53.086" S	115° 44' 39.313" E
Dixon-1	1984	85	4.5	19° 50' 54.963" S	115° 47' 16.469" E
Lady Nora-2	2008	75	4	19° 49' 59.820" S	115° 37' 14.440" E
Lowendal-1	1974	85	4.5	19° 52' 43.558" S	115° 38' 6.461" E
Haycock-1	1977	85	4	19° 50' 53.177" S	115° 43' 21.159" E
North Rankin-1	1971	122	4.5	19° 35' 51.910" S	116° 7' 35.520" E
North Rankin-2	1972	126	4.5	19° 33' 51.925" S	116° 8' 51.518" E
North Rankin-3	1972	126	4.5	9° 31' 45.977" S	116° 10' 27.159" E
North Rankin-4	1972	127	4.5	19° 35' 3.577" S	116° 6' 47.028" E
North Rankin-5	1976	123	4.5	19° 34' 12.455" S	116° 9' 33.688" E
North Rankin-6	1980	124	4.5	19° 32' 40.035" S	116° 8' 31.167" E
Lambert-1	1973	125	4.5	19° 27' 18.163" S	116° 29' 27.442" E
Lambert 5ST1	2000	116	4	19° 28' 32.605" S	116° 28' 45.029" E
Egret-1	1972	118	3	19° 30' 18.452" S	116° 20' 54.366" E

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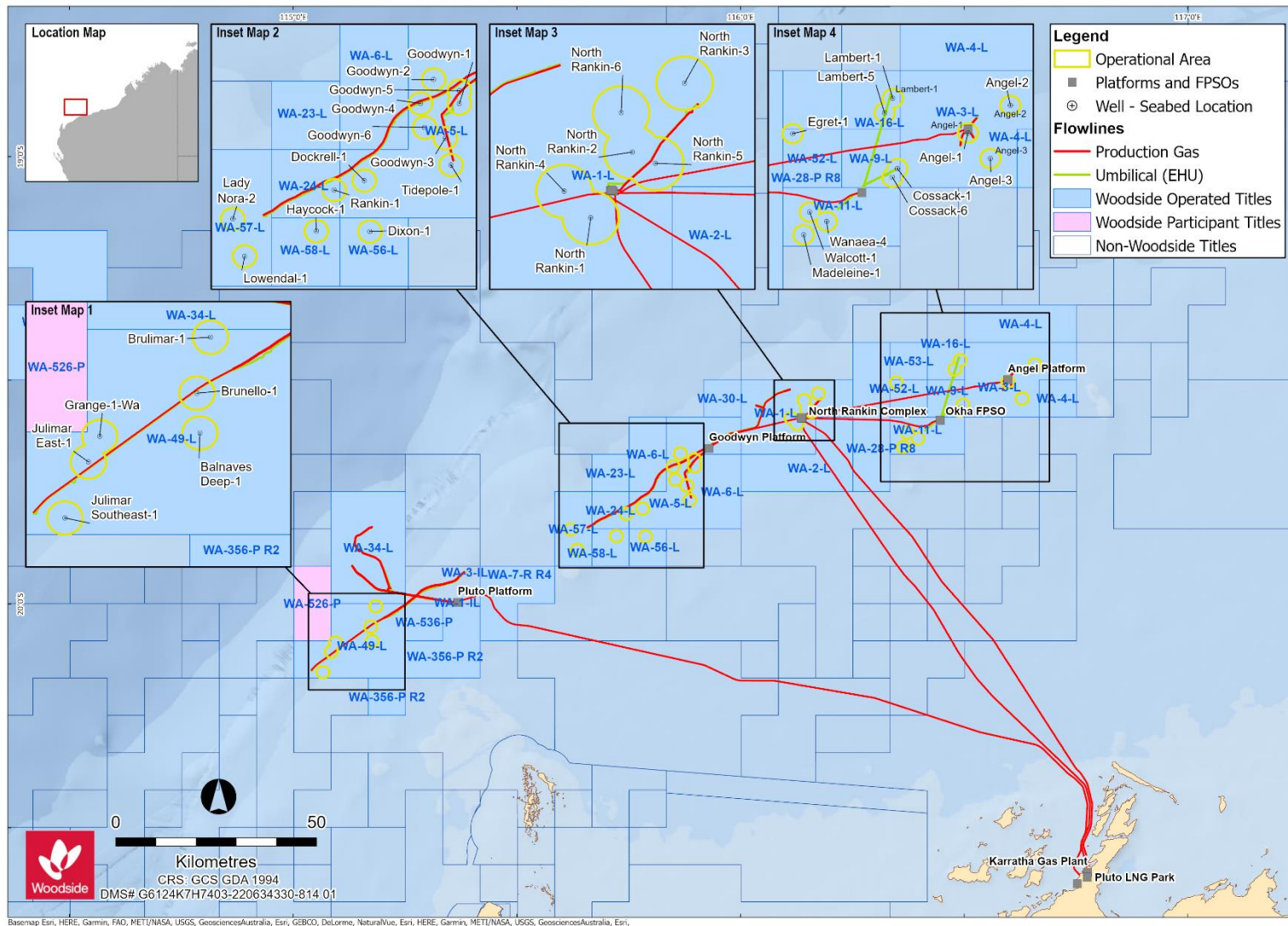


Figure 4-1: Location of the Petroleum Activities Program

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4.4 Operational Areas

Each wellhead has a designated Operational Area, resulting in 36 individual Operational Areas applicable to the scope of this EP, as shown in Figure 4-1. The Operational Areas are the spatial boundary of the Petroleum Activities Program, defined by the planned impacts and risks assessed and managed by this EP. The Operational Areas only include the area encompassing a 1500 m radius around each wellhead. This EP applies to activities within 36 Operational Areas encompassing the 36 wellheads to be removed. A temporary 500 m radius exclusion zone will be maintained around the project vessels during operations.

Vessel-related activities within the Operational Areas are required to comply with this EP. Vessels supporting the Petroleum Activities Program when outside the Operational Areas must adhere to applicable maritime regulations and other requirements. This EP applies to activities performed within the Operational Areas.

4.5 Timing

The proposed timing for the Petroleum Activities Program is outlined in Table 4-3. Activities under this EP may occur at any time of year within five years of EP acceptance. At the time of submission, 20 wells are accepted as abandoned and Woodside is currently preparing demonstration of well barriers effectiveness for 16 wells (Table 4-4). A further nine wells, which are all currently accepted as abandoned, are being assessed for potential presence of hydrocarbons in well annuli (Table 4-4 and Section 4.7.2). Where it is determined that hydrocarbons are present, or that further plugging activities are required for any well to be accepted as abandoned, this will be subject to a separate campaign. If required, this work will be done under a future separate EP which is presently anticipated to be submitted in 2027.

Table 4-3: Summary of Petroleum Activities Program timing

Activity	Approximate timing (and cumulative duration in the field)
IMR Activities	2024 to 2028 Where required, IMR activities are expected to take between 1 – 3 days per well.
Removal of wellhead and associated infrastructure for wells accepted as abandoned (including installation of environment plugs, where applicable)	2024 to 2028 For wells containing non-water-based muds (NWBM) within the annulus, activities are expected to take five days (to cover NWBM mitigation activities and wellhead removal). For all other wells, activities are expected to take three days per well. Based on there being three wells with NWBM within the annulus, and 33 without (Table 4-4), the cumulative duration of all activities is currently expected to be about 114 days. Under an unlikely worst case scenario, activities could take up to ten days per well, regardless of whether NWBMs are present. Activities may be undertaken on multiple wells concurrently.

4.6 Carbon Capture and Storage Opportunity

Woodside has been awarded a greenhouse gas storage permit over the Angel reservoir and has commenced detailed studies to assess the technical, regulatory and commercial feasibility of carbon capture and storage (CCS) for the reservoir. The Angel-1, Angel-2 and Angel-3 wells are located within the Angel reservoir, and decommissioning of these wells is included in this EP.

It is proposed that Woodside will continue to progress the petroleum activity program in parallel to the CCS opportunity. Should the CCS opportunity progress to a certain level of maturity, Woodside proposes to retain the Angel-1, Angel-2 and Angel-3 wellheads in situ and maintain and inspect the wellheads under the Angel Operations EP. If Woodside does not progress the CCS opportunity, the wellheads will be removed as proposed in this EP.

4.7 Infrastructure Overview

The details of the well history and composition is summarised in Table 4-4.

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Table 4-4: Summary of Petroleum Activities Program infrastructure

Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Balnaves Deep-1	WA-49-L	2011	Well barriers were approved for abandonment by NOPSEMA on 26/7/21	Seawater, high-viscosity pre-hydrated gel sweeps, non-water based muds (NWBM)	0.8 m ³ Inhibited seawater and residual water based muds (WBM)	103 m ³ Saraline 185V NWBM of which 67 m ³ is paraffin synthetic base oil	2020	X	X				
Brulimar-1		2007	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	7 m ³ Inhibited seawater, residual WBM	139 m ³ seawater and chemicals	2020	X	X	X			
Brunello-1ST1		2007	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	14 m ³ Completions brine	128 m ³ seawater and chemicals	2020	X	X	X			

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Grange-1-WA		2008	Well barriers were approved for abandonment by a prior designated authority, the Department of Industry and Resources (DIR) on 26/05/2008	Seawater, high-viscosity pre-hydrated gel sweeps, NWBM	4 m ³ Inhibited seawater	NA (Annuli cemented to seabed)	2020	X	X				13-5/8" dummy hanger
Julimar South East-1		2008	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, NWBM	55 m ³ Inhibited seawater	123 m ³ seawater and chemicals 101 m ³ NWBM between the top cement plug (environment plug) and reservoir plug which could gradually enter the annuli via corrosion over time.	2020	X	X				

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Julimar East-1		2007	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	13.5 m ³ Inhibited seawater	53 m ³ seawater and chemicals	2020	X	X				
Angel-1	WA-3-L	1971	Well barriers were approved for abandonment by a prior designated authority, the Department of Mines (DM) on 28/01/1972 Well is also undergoing assessment regarding the use of the Angel reservoir for CCS (Section 4.6)	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	3 m ³ Inhibited Seawater	116 m ³ seawater and chemicals	2018	X	X		X		
Angel-2		1972	Well barriers were approved for abandonment by a prior designated	WBM	3.2 m ³ Low-solids seawater, WBM	123 m ³ seawater and chemicals	2020	X	X		X		

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining						
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other	
			authority, DM on 19/05/1972 Well is also undergoing assessment regarding the use of the Angel reservoir for CCS (Section 4.6)											
Angel-3		1973	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status Well is also undergoing assessment regarding the use of the Angel reservoir for CCS (Section 4.6)	WBM	2.4 m ³ inhibited seawater	129 m ³ seawater and chemicals	Planned for 2022 or 2023	X	X	X	X			

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Cossack-1	WA-9-L	1989	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	5.5 m ³ inhibited KCL brine	188 m ³ seawater and chemicals	2022	X	X			X	
Cossack-6ST1		2005	Well barriers were approved for abandonment by NOPSEMA on 15/07/2021	Seawater, high-viscosity pre-hydrated gel sweeps, NWBM	8.3 m ³ inhibited seawater	44 m ³ seawater and chemicals	2020	X	X	X	X	X	
Madeleine-1	WA-11-L	1969	Well barriers were approved for abandonment by a prior designated authority, DM on 30/01/1970	WBM	0.3 m ³ inhibited seawater	68 m ³ seawater and chemicals	2018	X			X		
Walcott-1		1979	Well barriers were approved for abandonment by a prior designated authority, DM on 20/11/1979	WBM	2.2 m ³ inhibited seawater	82 m ³ seawater and chemicals	2018	X		X	X	X	30" through nine 5/8" casings

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Wanaea-4		1992	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, NWBM	5.8 m ³ inhibited seawater	62 m ³ PETROFREE NWBM, of which 41 m ³ is Ester base oil	2020	X	X		X		
Dockrell-1	WA-5-L	1973	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	WBM	4.4 m ³ inhibited seawater	97 m ³ seawater and chemicals	2020	X	X	X		X	
Goodwyn-1		1971	Well barriers were approved for abandonment by a prior designated authority, DM on 31/12/1971 Suitability for wellhead severance currently being evaluated given	WBM	2.5 m ³ , inhibited seawater, WBM	95 m ³ seawater and chemicals	2022	X	X		X	X	

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining						
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other	
			potential presence of hydrocarbons within well annuli											
Goodwyn -2		1972	Well barriers were approved for abandonment by a prior designated authority, DM on 18/08/1972	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	10.4 m ³ inhibited seawater	44 m ³ seawater and chemicals	2022	X	X	X	X	X		
Goodwyn -3		1972	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	WBM	2.3 m ³ inhibited seawater, WBM	98 m ³ seawater and chemicals	2022	X	X	X	X	X		
Goodwyn -4		1973	Well barriers were approved for abandonment by a prior designated authority, DM on 18/06/1973 Suitability for wellhead severance currently being	WBM	2.2 m ³ inhibited seawater, WBM	115 m ³ seawater and chemicals	2022	X	X	X	X	X		

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
			evaluated given potential presence of hydrocarbons within well annuli										
Goodwyn -5		1978	Well barriers were approved for abandonment by a prior designated authority, DM on 1/02/1979 Suitability for wellhead severance currently being evaluated given potential presence of hydrocarbons within well annuli	WBM	2.3 m ³ inhibited seawater, WBM	77 m ³ seawater and chemicals	2022	X	X	X	X	X	
Goodwyn -6		1981	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	5 m ³ Inhibited seawater	148 m ³ seawater and chemicals	2022	X	X				

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Tidepole-1		1975	Well barriers were approved for abandonment by a prior designated authority, DM on 01/12/1975 Suitability for wellhead severance currently being evaluated given potential presence of hydrocarbons within well annuli	WBM	4.3 m ³ inhibited seawater, WBM	108 m ³ seawater and chemicals	2022	X	X	X	X	X	
Rankin-1	WA-24-L	1971	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	WBM	4.8 m ³ inhibited seawater, WBM	111 m ³ seawater and chemicals	2022	X	X		X	X	
Dixon-1	WA-56-L	1984	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.4 m ³ inhibited seawater, WBM	196 m ³ seawater and chemicals	2020	X	X	X	X	X	

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
			NOPSEMA for abandonment status										
Lady Nora-2	WA-57-L	2008	Well barriers were approved for abandonment by a prior designated authority, DIR on 19/11/2008	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	6.5 m ³ inhibited seawater	144 m ³ seawater and chemicals	2018	X		X		X	
Lowendal -1		1974	Well barriers were approved for abandonment by a prior designated authority, DM on 22/03/1974	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	4.9 m ³ inhibited seawater, WBM	65 m ³ seawater and chemicals	2018	X		X	X	X	
Haycock-1	WA-58-L	1977	Well barriers were approved for abandonment by a prior designated authority, DM on 14/04/1977 Suitability for wellhead severance currently being evaluated given potential presence	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.5 m ³ inhibited seawater, WBM	104 m ³ seawater and chemicals	2018	X		X	X	X	

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining						
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other	
			of hydrocarbons within well annuli											
North Rankin-1	WA-1-L	1971	Well barriers were approved for abandonment by a prior designated authority, DM on 23/11/1972 Suitability for wellhead severance currently being evaluated given potential presence of hydrocarbons within well annuli	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2 m ³ inhibited seawater, WBM	96 m ³ seawater and chemicals	2020	X	X	X	X	X		
North Rankin-2		1972	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.4 m ³ inhibited seawater, WBM	80 m ³ seawater and chemicals	2022	X	X	X	X	X		
North Rankin-3		1972	Woodside currently preparing demonstration of	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.3 m ³ inhibited seawater, WBM	81 m ³ seawater and chemicals	2022	X	X	X		X		

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining						
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other	
			well barrier effectiveness to seek approval from NOPSEMA for abandonment status											
North Rankin-4		1972	Well barriers were approved for abandonment by a prior designated authority, DM on 23/11/1972 Suitability for wellhead severance currently being evaluated given potential presence of hydrocarbons within well annuli	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.3 m ³ inhibited seawater, WBM	78 m ³ seawater and chemicals	2022	X	X	X	X	X		
North Rankin-5		1976	Well barriers were approved for abandonment by a prior designated authority, DM 1/03/1977 Suitability for wellhead severance currently being	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.5 m ³ seawater with residual WBM	112 m ³ seawater and chemicals	2020	X	X	X	X	X		

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining						
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other	
			evaluated given potential presence of hydrocarbons within well annuli											
North Rankin-6		1980	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	5.9 m ³ seawater with residual WBM	188 m ³ seawater and chemicals	2022	X	X	X	X	X		
Lambert-1	WA-16-L	1973	Well barriers were approved for abandonment by NOPSEMA on 27/05/2021 Suitability for wellhead severance currently being evaluated given potential presence of hydrocarbons within well annuli	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2 m ³ seawater with residual WBM	102 m ³ seawater and chemicals	2020	X	X	X	X	X		

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Well	Petroleum Title	Year drilled	Well status	Drilling fluids	Displacement fluids (above the top cement plug, Table 4-5)	Fluids within casing annuli (above the top cement plug, Table 4-6)	Date of last inspection	Wellhead and associated infrastructure remaining					
								Exploration wellhead	Corrosion cap	PGB	TGB	Guideposts	Other
Lambert 5ST1		2000	Woodside currently preparing demonstration of well barrier effectiveness to seek approval from NOPSEMA for abandonment status	Seawater, high-viscosity pre-hydrated gel sweeps, NWBM	17 m ³ inhibited seawater	81 m ³ NWBM (Syn-Teq) of which 53 m ³ is Olefin base oil Plus 78m3 of inhibited seawater	2020	X			X		
Egret-1	WA-52-L	1972	Well barriers were approved for abandonment by a prior designated authority, DM on 01/06/1973	Seawater, high-viscosity pre-hydrated gel sweeps, WBM	2.1 m ³ seawater with residual WBM	128 m ³ seawater and chemicals	Inspection prior to removal activity (2023-25)	X	X	X			

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4.7.1 Wellhead and Associated Infrastructure Composition

The wellheads are comprised of mild steel, with small amounts of elastomeric materials such as Teflon and Viton used within the seal components (up to 750 g, representing, less than 0.1% of the wellhead composition). Surface coatings and paints have been used on the wellheads for corrosion protection and are zinc-oxide based. Steel debris or corrosion caps sit on top of all but six of the wellheads (Table 4-4) to protect them from marine growth and corrosion. The total weight of the steel material is estimated to be about 7500 kg and the height above the seabed varies between 2.2 and 4.5 m.

In total, 28 wellheads have an associated permanent guide base (PGB) and/or temporary guide base (TGB) (Table 4-4) which are comprised of mild steel.

Naturally occurring radioactive material and mercury are not expected to be present within the wellheads or associated infrastructure to be removed as wellheads were used only for exploration.

4.7.2 Residual Chemicals and Fluids

Wellheads will only be removed once they have been accepted as plugged and abandoned by NOPSEMA (or a prior Designated Authority) (Section 4.7.1). During plug and abandonment, deep permanent suspension plugs are installed providing a barrier between the reservoir and the marine environment. Therefore, there is no credible risk of fluids beneath the reservoir plug being released or exchanging with the marine environment (Section 7.6.1).

However, chemicals and fluids within the wells, either above the top suspension plug (displaced fluids) or trapped within the casing annuli, have the potential to immediately exchange with the marine environment following wellhead removal. For three wells, NWBM remains trapped in the annulus (Table 4-4) and for one well (Julimar South East-1) NWBM remains between the top environment plug and reservoir plug. For the three wells with NWBM in the annulus an environment plug will be installed (Section 4.12) to prevent immediate release and exchange of the base oil component of the NWBM with the marine environment.

The volumes remaining have been calculated based on the depth of the shallowest plug and diameter of the inner casing and well (Table 4-4).

The typical chemicals within the displacement fluids and residual fluids in the casing annuli are presented in Table 4-5 and 1The wellhead Julimar South East-1 does not have NWBM above the environment plug, but it is within the casing between the environment and reservoir abandonment plug.

Table 4-6, along with their function and Centre for Environment, Fisheries and Aquaculture Science Offshore Chemical Notification Scheme (OCNS) ranking. Woodside’s chemical assessment process is further described in Section 4.13.1.

Nine wells are currently being assessed for potential hydrocarbon presence within the well annuli (Section 4.7.1) and may require inspection to confirm this (Section 4.11). If hydrocarbons are detected the wellhead will remain in place until further engineering can be completed to determine the most suitable method to decommission these wells. As hydrocarbons have not been confirmed within any well and given there is no credible release to the environment of these fluids under this EP, volumes have not been presented below.

Table 4-5: Typical residual displacement chemicals and fluids above the top cement plug

Chemical	Function	OCNS ranking
<i>Displacement fluids¹</i>		
Corrosion Inhibitor	Prevent corrosion in the wellhead	Gold
Biocide	Prevent marine growth in the wellhead	E

¹The wellhead Julimar South East-1 does not have NWBM above the environment plug, but it is within the casing between the environment and reservoir abandonment plug.

Table 4-6: Typical residual chemicals and fluids within the casing annuli for WBM and NWBM wells

Chemical	Function	Typical Concentrations	OCNS Ranking
WBM wells			
Water	Base Fluid	70-90 vol%	
Salt (KCl, NaCl)	Inhibition	Up to 15 wt%	E
Caustic Soda	Acidity Control	0.15 ppb	E
Soda Ash	Hardness Control	0.25 ppb	E
Xanthan/Guar gum	Viscosifier	1-2 ppb	E
Flowzan	Viscosifier	1-2 ppb	Gold ¹
POLYPAC, Dextrid (Starch)	Fluid Loss Control Agent	2.5 - 3.5 ppb	E
Encapsulating Polymer/s (e.g. PHPA, IDCAP D)	Shale Inhibitor	1.0 -2.5 ppb	Gold ¹
Polyamine, glycol	Shale Inhibitor	3-5 vol%	Gold ¹
Bentonite	Viscosity	Zero to 30 ppb	E
Calcium Carbonate	Loss Circulation Material	Zero to 50 ppb	E
Barite	Density	Zero to 200 ppb (mud weight dependant)	E
NWBM wells			
Saraline 185V	Synthetic Base Oil	51 %vol	E
Syn-Teq		74%vol	Not OCNS ranked. Syn-Teq is considered non-toxic in accordance with the Woodside's Chemical Assessment Guideline.
Petrofree		60%vol	Petrofree is no longer listed on the OCNS register as its certification expired in 2006, prior to 2006 it had an OCNS rating as an E chemical.
Novatec P	Primary Emulsifier Additive	8 ppb	Gold ¹
Novatec S	Secondary Emulsifier Additive	4 ppb	E
Versagel HT	Viscosifier Additive	4 ppb	E
Versatrol HT	Fluid Loss Control	5.7 to 23 kg/m ³	D
Soltex	Filter Cake Sealing Additive	2 ppb	Gold ¹
Lime	Alkalinity Control	3 ppb	E

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Chemical	Function	Typical Concentrations	OCNS Ranking
Calcium Chlorine (CaCl ₂)	Salinity Control	210,000 mg/L	E
Barite	Weighting Agent	225 ppb	E

¹ Chemicals are considered to 'Pose Little or No Risk to the Environment (PLONAR)

4.7.3 Other Property in the Petroleum Titles

Other property with the Petroleum Titles is summarised in Table 4-7.

Table 4-7: Other property in the Petroleum Titles

Title	Relevant EP
WA-49-L	Balnaves Plug and Abandonment EP
	Julimar Operations EP
WA-16-L, WA-9-L, WA-11-L	Okha Operations EP
WA-1-L	North Rankin Operations EP
WA-3-L	Angel Operations EP
WA5-L, WA-57-L, WA-24-L	Goodwyn Alpha Operations EP
WA-56-L	NA – no property remaining within title
WA-58-L	NA – no property remaining within title
WA-52-L	NA – no property remaining within title ¹

¹ Angel Export Pipeline runs through title and is covered under WA-14-PL in the Angel Operations Environment Plan

4.8 Project Vessels

The Petroleum Activities Program is proposed to be undertaken using an offshore support vessel such as an inspection, maintenance and repair vessel or semisubmersible heavy well intervention vessel, which may be accompanied by a general support vessel. Only one offshore support vessel will be undertaking planned activities in an Operational Area at any one time. Collectively, these vessels are referred to as 'project vessels'. Specifications of a typical offshore support and general support vessel are outlined in Table 4-8.

Table 4-8: Typical offshore support vessel and general support vessel specifications

Component	Specification Range	
Type	General support vessel	Offshore support vessels
Accommodation (maximum persons on board)	Approximately 120 personnel	Approximately 140 personnel
Station-keeping	DP2	DP2
Fuel (@ 90% capacity)	Approximately 1006 m ³	Approximately 1619 m ³
Lube oil storage capacity	Approximately 35 m ²	Approximately 162 m ³

An offshore support vessel is proposed to be used to remove the wellheads and associated infrastructure. If required, a general support vessel may be used to transport equipment and materials between the Operational Areas and port or to perform standby duties within the Operational Areas. General support vessels are also able to assist in implementing the Oil Pollution First Strike Plan (Appendix H), should an environmental incident occur (such as spills), and may also have

additional capability, such as remotely operated vehicle (ROV) activities, deployment of subsea equipment, monitoring and inspection.

For power generation, project vessels may use diesel-powered generators and liquefied natural gas. All project vessels will display navigational lighting and external lighting on a 24-hour basis, as required for safe operations. Lighting levels will be determined primarily by operational safety and navigational requirements under relevant legislation, specifically the *Navigation Act 2012 (Cth)*.

Potable water, primarily for accommodation and associated domestic areas, will be generated on the project vessel using a reverse osmosis plant. This process will produce brine, which is diluted and discharged at the sea surface.

Project vessels will also discharge deck drainage from open drainage areas, bilge water from closed drainage areas, putrescible waste and treated sewage and grey water. All generated hazardous and non-hazardous waste are disposed of onshore.

4.8.1 Refuelling

Fuel transfers that may occur within the Operational Areas include refuelling of vessels, cranes, helicopters or other equipment as required.

4.8.2 Dynamic Positioning

Project vessels will use dynamic positioning (DP) for station-keeping. DP uses satellite navigation and radio transponders in conjunction with thrusters to maintain position at the required location during the activity. Seabed transponders, which emit signals that are detected by receivers on the vessel and used to calculate position, may be used to improve the accuracy of vessel location. The transponders are typically deployed in an array on the seabed, using clump weights comprising concrete or using transponder stands; if used, these will be recovered at the end of the activity.

4.9 Remotely Operated Vehicles

Project vessels may be equipped with an ROV system that is maintained and operated by a specialised contractor aboard the vessel. ROVs may be used for activities such as:

- Visual inspections and observations
- Seabed and hazard survey
- Placement of ROV tool baskets on the seabed or mud mats on the seabed
- Marine growth cleaning of the wellhead and removal of the debris cap
- Open water tool observation and guidance
- Sediment relocation
- Wellhead tooling and cutting
- Post-well seabed survey.

4.10 Helicopters

During the Petroleum Activities Program, crew changes may be performed using helicopters as required. Helicopter operations within the Operational Area are limited to helicopter take-off and landing on the helideck.

4.11 Inspection, Maintenance, Repair (IMR) Activities

Inspection and maintenance activities including visual inspection, marine growth removal and sediment relocation may be required for some or all wells (Table 4-). Inspection activities may be

undertaken to assess the status of the infrastructure and confirm most appropriate removal method. Inspection and logging activities may also be required to identify the presence and extent of hydrocarbons in well annuli (Section 4.7.1 and 4.7.2).

Inspection and maintenance activities are typically undertaken from an offshore support vessel via an ROV.

Inspection and maintenance activities often require deployment frames/baskets, which are temporarily placed on the seabed. These frames/baskets typically have a perforated base with a seabed footprint of about 25 m². The frames/baskets are recovered to the vessel at the end of the activity.

IMR activities that may occur during the Petroleum Activities Program are presented in Table 4-9.

Table 4-9: IMR activities

Activity	Description	Method
Visual inspection	Visual inspection of wellheads to assess status and confirm appropriate removal method.	An ROV may be used to inspect infrastructure and collect data on its status (e.g. inclination measurement, CP readings, position fix and conductor height).
Marine growth removal	It may be necessary to remove excess marine growth before undertaking inspection or removal.	Various methods may be used to remove marine growth from the infrastructure: <ul style="list-style-type: none"> • water jetting: uses high-pressure water to remove marine growth • brush systems: uses brushes attached to an ROV to physically remove marine growth • acid (typically sulfamic acid): chemically dissolves calcium deposits
Sediment relocation	It may be necessary to remove sediment build up around well infrastructure before undertaking inspection or removal.	A water jet or ROV-mounted suction pump may be used to move small amounts of sediment in the immediate vicinity of the infrastructure (i.e. within the existing footprint)
Well Logging	Logging instruments that may be required for inspection of wells include, but are not limited to, gamma ray (GR) and casing collar locator (CCL) for depth correlation, CBL to measure cement integrity, and neutron generators to detect the presence of hydrocarbons.	If required, well logging will be carried out with appropriate controls in place. Some logging tools may contain low activity radiation sources. Radiation fields are not generally detectable outside the tool when the tool is not energised, therefore they do not present an environmental risk.

4.11.1 IMR Fluids and Discharges

Planned chemical discharges may occur during IMR activities. However, these are discharged in small volumes. Chemicals used in the well infrastructure may be released during IMR activities; these include, but are not limited to:

- Acid – sulfamic (or equivalent) acid removes calcium deposits
- Oxygen scavenger – oxygen scavenger de-oxygenates the fluid within the wellhead to prevent corrosion and aerobic bacterial growth.

4.12 Installation of Environmental Plugs for NWBM wells

To minimise the release of NWBM (from Lambert-5ST1, Balnaves Deep-1 and Wanaea-4 wells), an environmental plug will be installed in the well annuli of these wells prior to wellhead removal. The plug will be installed by punching or perforating an upper and lower access hole in the well casing to create a circulation path in the annulus. A small amount of cement or other suitable material (3 to 5 m²) will then be pumped into the annulus to create a barrier that will contain fluids in the annulus

once the wellhead is cut and removed. Alternatively, the environmental plug will be installed using a similar external hot tap method for wells with NWBM.

A small amount of NWBM (up to 5 m³) may be released through displacement during the activity or due to a small gap remaining above the top of the environment plug. Once in place, the environment plug will remain in place until natural degradation occurs (hundreds of years) resulting in a gradual delayed release.

4.13 Removal of Wellheads and Associated Infrastructure

The wellheads and associated infrastructure are planned to be removed and recovered as part of the Petroleum Activities Program. Methods for removing and recovering the wellheads and guide bases are described in Table 4-10. Infrastructure has been present since the wells were drilled between 1969 and 2011 (Table 4-2) and may be left *in situ* for up to an additional five years following acceptance of this EP². This is considered to be acceptable, given:

- It will not affect the success of future removal
- There are no new or increased impacts or risks to the environment from infrastructure remaining *in situ* for this period.

This flexibility in the timing for removing and recovering infrastructure provides for execution planning and approval in accordance with Woodside’s WMS processes, also the opportunity to campaign wellhead removal with other Woodside wellhead removal activities. For activities such as installation of environmental plugs in NWBM wells, specialised equipment is required and therefore timing for installation of plugs and removal of associated wellheads may be optimised to ensure availability of equipment. This is anticipated to enable reduced impacts and risks to the environment, such as reduced time and emissions and discharges across projects and reduced risk for dropped objects through additional feasibility assessment and will enable cost efficiencies.

Table 4-10: Wellhead cutting methods

Method	Description	Associated Discharges	Preference
Abrasive water jet (AWJ) cutting	<p>Method for all wells (except Grange-WA-1): Method uses a system of high-pressure water entrained with grit and flocculant pumped via an umbilical from a vessel to a subsea cutting tool that is inserted into the inner well casing.</p> <p>Where possible, cut is made at sufficient depth below the mudline (more than 3 m) in accordance with international well standard practice, such as Oil and Gas UK Well Decommissioning Guidelines (Oil and Gas UK, 2018). This may also allow for additional cut attempts.</p> <p>Uses: Suitable where an internal cut can be achieved and within water depths shallower than approximately 300 to 350 m, due to requirement for high-pressure jetting. Not restricted by number of casing strings.</p>	4 t of grit and 250 L flocculant per AWJ cut (majority or all to be released below the mudline)	Preferred method given water depth within Operational Areas

² Should further P&A activities be required for any wells or if hydrocarbons are detected in the well annuli of any well (**Section 4.7.1**), these wellheads may remain in-situ for a longer period of time as additional activities will be subject to a separate EP. This is considered to be acceptable given requirements of Section 270(3)(d) (**Section 1.8.1.1**) and justification provided above in **Section 4.13**.

Method	Description	Associated Discharges	Preference
	<p>Method for Grange-WA-1: Removal of the Grange-WA-1 wellhead has been previously attempted. Following permanent plugging of the Grange-WA-1 well, wellhead removal operations commenced with cutting of the 9-5/8" casing at 260 mMDRT. There were several failed attempts to remove the 13-5/8" dummy casing hanger. Planned removal of the wellhead was aborted as it was not possible to remove the wellhead with the 13-5/8" dummy hanger in place. The wellhead remains in place with a corrosion cap installed at a height of 2.2 m above the seabed.</p> <p>Due to the stuck dummy casing hanger, amendments to the AWJ cutting method will be employed, such as slowing down the cut, and using a different sealing arrangement above the cut location to maintain pressure. These are expected to be sufficient to achieve successful cut.</p>		
External cutting using diamond wire saw	<p>Method: Method uses a hydraulically driven motor and pulley system to operate an industrial diamond cutting wire via a vessel or ROV.</p> <p>Uses: Suitable for wells with multiple casing strings and within all water depths. May require up to 1 m of well infrastructure to be left <i>in situ</i> above seabed due to external cut or a small amount of sediment relocation to allow cut at the seabed.</p> <p>Limited global availability of saws large enough for wells where there is an external structure such as a temporary guide base. These structures would also require long cut duration and carry a lower likelihood of success.</p>	N/A	Contingency method if preferred method is unsuccessful
Mechanical internal cutting	<p>Method: Method uses mechanical cutting knives that are inserted into the inner well casing and rotated.</p> <p>Where possible, cut is made at sufficient depth below the mudline (more than 3 m) in accordance with international well standard practice, such as Oil and Gas UK Well Decommissioning Guidelines (Oil and Gas UK, 2018). This may also allow for additional cut attempts.</p> <p>Uses: Suitable for wells with multiple casing strings where an internal cut can be achieved, and within all water depths.</p>	N/A	Contingency method if improvements in technology allow it to become suitable for removal of guide bases

Note: Removal of remaining infrastructure does not include any structures installed below the seabed. Should diamond wire saw be used to externally cut any wellhead, effort will be made to make this cut as close to the seabed as possible.

Once the wellhead is cut, an ROV will be used to attach rigging to the infrastructure and crane deployed to recover equipment to the vessel deck. The infrastructure may be temporarily set down on the seabed in the immediate vicinity of the well to enable successful recovery. Once recovered, the infrastructure will be transported to shore for disposal and recycling.

4.13.1 As-Left Survey

An as-left survey will be undertaken using an ROV following the completion of removal activities at each well. The survey is intended to confirm that all infrastructure above the mudline has been removed.

4.14 Waste Generated from the Petroleum Project Activities

Woodside is committed to the re-use, repurposing and recycling of as much of our decommissioned infrastructure as practicable. Any wastes generated during the petroleum activities program, including the recovery of the wellheads, will be disposed of in accordance with a waste management plan. The waste management plan will apply the following waste management hierarchy in order to minimise the amount of waste entering landfill:

- Reuse
- Repurpose
- Recycle
- Landfill.

All waste streams will be classified and managed in accordance with applicable legislative requirements, or in accordance with international guidance where applicable, for example:

- Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Cth) which implements the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- Environmental Protection (Controlled Waste) Regulations 2004 (WA)
- MARPOL: International Convention for the Prevention of Pollution from Ships
- International Finance Corporation: EHS Guidelines: Environmental Waste Management.

Generated wastes may be broadly classified into one of three categories:

- General non-hazardous solid wastes: Non-hazardous solid wastes produced on project vessels include cardboard, plastic, aluminium and paper. These waste materials will be stored on board the project vessels in suitable containers (segregated from hazardous waste materials) for transport back to shore for disposal/recycling in accordance with local regulations. Non-hazardous wastes may be incinerated onboard, eliminating the requirement for onshore disposal.
- Hazardous solid and liquid wastes: Hazardous wastes are defined as materials that are harmful to human health or the environment and include waste prescribed in the *Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Cth) and Environmental Protection (Controlled Waste) Regulations 2004 (WA)*. Hazardous wastes stored on vessels may include:
 - lubricating oils, hydraulic fluids, cleaning and cooling agents
 - oil filters and batteries
 - oily rags
 - paint, aerosol cans
 - medical wastes
 - acids/caustics and solvents

All hazardous waste generated will be documented and tracked, segregated from other waste streams and stored in suitable containers. Recyclable hazardous wastes, such as oils and batteries, will be stored separately from non-recyclable materials. All of these wastes are disposed of onshore at a licensed facility.

Decommissioned infrastructure generated from the Petroleum Activities Program which include:

- Mild steel recovered from 36 wellheads and associated infrastructure (i.e. PGB, TGB and corrosion caps) (~20,000 kg per wellhead, including permanent and temporary guide bases).

Disposal of the wellheads is described in Section 4.14.1.

4.14.1 Disposal of Recovered Wellheads

Woodside will engage a suitably experienced subcontractor for the disposal of the recovered wellheads. Recovered infrastructure will be managed through the projects contracting strategy which

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will include an infrastructure disposal strategy where waste management solutions will be assessed against the principles of the waste management hierarchy. The selected contractor will be:

- Experienced in the handling and disposal of analogous infrastructure; and
- Required to have the necessary licences and permits to ensure the work is undertaken in accordance with applicable legislative requirements.

The dismantling and disposal of the wellheads is anticipated to be completed within 12 months of arrival at the receiving port and waste management facility, however exact timing will be determined in consultation with the appropriately licenced project waste subcontractor.

The wellhead composition is presented in **Table 4-11** and is predominantly mild steel. It is expected that there are no NORM or mercury contamination on the wellheads, as the structures were used for exploration purposes only and never produced hydrocarbons.

Woodside anticipates the majority of a wellhead and associated infrastructure is able to be recycled or repurposed, resulting in the percentage of waste entering landfill to be less than 5%. There are no reuse opportunities for the wellheads. Factors such as design, age of structure, fatigue due to the initial drilling and installation process mean that reuse is not feasible. Woodside’s target is to recycle 90% by weight or more of the equipment recovered under this EP.

Table 4-11: Typical Specifications for Wellheads

Project Waste Type	Composition	Indicative Weight (tonnes)	Expected Waste End State
Wellheads and associated infrastructure	Mild Steel	7.5 t per wellhead	Recycle
	Surface coatings and paints	3 – 5 kg per wellhead	Recycle
	Elastomeric Materials	750 g per wellhead	Landfill

4.15 Project Fluids

All chemicals that may be operationally discharged during removal of the infrastructure to the marine environment by the Petroleum Activities Program are evaluated, using a defined framework and set of tools, to ensure the potential impacts are acceptable, ALARP and meet Woodside’s expectation for environmental performance. This excludes legacy chemicals, including residual fluids currently in the wellbore, which have been assessed in Section 7.7.6 for discharge. All previously approved plugging and drilling chemicals are included on the Woodside Drilling and Completions Chemical Assessment Register, which is reviewed, as per the Chemical Selection and Assessment Environment Guideline.

The chemical assessment process follows the principles outlined in the OCNS, which manages chemical use and discharge in the United Kingdom and the Netherlands. It applies the requirements of the Convention for the Protection of the Marine Environment of the North-East Atlantic (Oslo and Paris Commission for the Convention for the Protection of the Marine Environment of the North-East Atlantic [OSPAR] Convention). The OSPAR Convention is widely accepted as best practice for managing chemicals.

All chemical substances listed on the OCNS-ranked list of registered products have an assigned ranking based on toxicity and other relevant parameters, such as biodegradation and bioaccumulation, in accordance with one of two schemes (Figure 4-2):

- **Hazard Quotient (HQ) Colour Band:** Gold, Silver, White, Blue, Orange and Purple (listed in order of increasing environmental hazard), or
- **OCNS Grouping:** E, D, C, B or A (listed in order of increasing environmental hazard). Used for inorganic substances, hydraulic fluids and pipeline chemicals only.

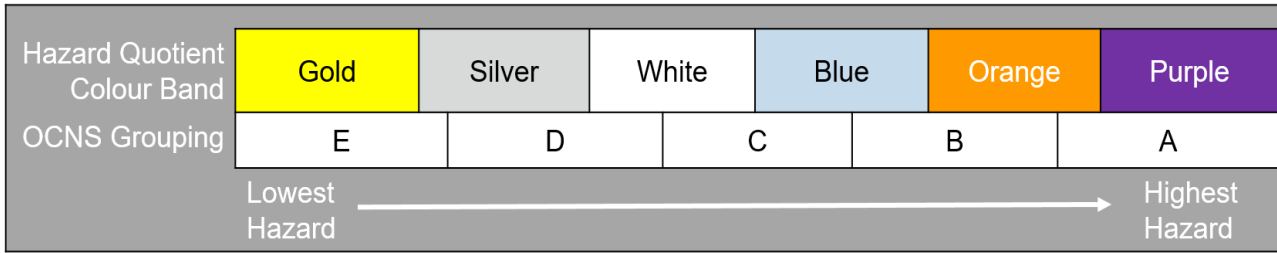


Figure 4-2: Offshore chemical notification ranking scheme

Chemicals fall into the following assessment types:

- No further assessment: Chemicals with an HQ band of Gold or Silver, or an OCNS ranking of E or D with no substitution or product warnings, do not require further assessment. Such chemicals do not represent a significant impact on the environment under standard use scenarios and are therefore considered ALARP and acceptable.
- Further assessment and ALARP justification required: The types of chemicals that need to be assessed further to understand the environmental impacts of discharge into the marine environment are:
 - chemicals with no OCNS ranking
 - chemicals with an HQ band of white, blue, orange, purple or an OCNS ranking of A, B or C
 - chemicals with an OCNS product or substitution warning.

Further assessment includes assessing the ecotoxicity, biodegradation and bioaccumulation of the chemicals in the marine environment in accordance with the Centre for Environment, Fisheries and Aquaculture Science hazard assessment and the Department of Mines and Petroleum (now Department of Mines, Industry Regulation and Safety) Chemical Assessment Guide: Environmental Risk Assessment of Chemicals used in WA [Western Australia] Petroleum Activities Guideline (2013).

5 DESCRIPTION OF THE EXISTING ENVIRONMENT

5.1.1 Overview

In accordance with Regulations 13(2) and 13(3) of the Environment Regulations, this section describes the EMBA by the activity (planned and unplanned), as described in Section 4. As per Section 2.4.2, references to the Master Existing Environment have been made throughout this EP.

Woodside has identified the EMBA as the largest spatial extent where unplanned events could have an environmental consequence on the surrounding environment. For this EP, the EMBA is the potential spatial extent of surface and in-water hydrocarbons at concentrations above ecological impact thresholds, in the event of the worst-case credible spill. The ecological impact thresholds used to delineate the EMBA are defined in Section 7.8.1. The worst-case credible spill scenario for this EP is a vessel collision resulting in the release of marine diesel into the marine environment.

Woodside recognises hydrocarbons may be visible beyond the EMBA at lower concentrations than the ecological impact thresholds defined in Section 7.8.1. These visible hydrocarbons are not expected to cause ecological impacts. In respect of this, an additional socio-cultural EMBA is defined as the potential spatial extent within which social-cultural impacts may occur from changes to the visual amenity of the marine environment. Receptors relevant to the socio-cultural EMBA include Commonwealth and State marine protected areas (MPAs), National and Commonwealth Heritage Listed places, areas of tourism and recreation, and commercial and traditional fisheries. For this EP, the socio-cultural EMBA for surface hydrocarbons encompasses an area fully within the boundaries of the EMBA for ecological impacts. The EMBA and socio-economic EMBA are shown in Figure 5-1 and described in Table 5-1.

The EMBA presented does not represent the predicted coverage of any one hydrocarbon spill or a depiction of a slick or plume at any particular point in time. Rather, the areas are a composite of a large number of theoretical paths, integrated over the full duration of the simulations under various metocean conditions.

Table 5-1: Hydrocarbon spill thresholds used to define the EMBA for surface and in-water hydrocarbons

Hydrocarbon Type	EMBA ¹	Socio-cultural EMBA ¹	Planning Area for Scientific Monitoring
Surface	10 g/m ² This represents the minimum oil thickness (0.01 mm) at which ecological impacts (for example, to birds and marine mammals) are expected to occur.	1 g/m ² This represents a wider area where a visible sheen may be present on the surface and, therefore, the concentration at which socio-cultural impacts to the visual amenity of the marine environment may occur. However, it is below concentrations at which ecological impacts are expected to occur. This low exposure value also establishes the planning area for scientific monitoring (NOPSEMA guidance note: A652993, April 2019).	
Dissolved	50 ppb This represents potential toxic effects, particularly sublethal effects to highly sensitive species (NOPSEMA guidance note: A652993, April 2019). As dissolved hydrocarbons are within the water column and not visible, impacts to socio-cultural receptors are associated with ecological impacts. Therefore, dissolved hydrocarbons at this threshold also represent the level at which socio-cultural impacts may occur.		10 ppb This low exposure value establishes the planning area for scientific monitoring (based on potential for exceedance of water quality triggers) (NOPSEMA guidance note: A652993, April 2019). This area is described further in Appendix D: Figure 5-1.

Hydrocarbon Type	EMBA ¹	Socio-cultural EMBA ¹	Planning Area for Scientific Monitoring
Entrained	100 ppb This represents potential toxic effects, particularly sublethal effects to highly sensitive species (NOPSEMA guidance note: A652993, April 2019). As entrained hydrocarbons are within the water column and not visible, impacts to socio-cultural receptors are associated with ecological impacts. Therefore, entrained hydrocarbons at this threshold also represent the level at which socio-cultural impacts may occur.		In the event of a spill, DNP will be notified of AMPs which may be contacted by hydrocarbons at this threshold.
Shoreline	100 g/m ² This represents the threshold that could impact the survival and reproductive capacity of benthic epifaunal invertebrates living in intertidal habitat.	10 g/m ² This represents the volume where hydrocarbons may be visible on the shoreline but is below concentrations at which ecological impacts are expected to occur.	N/A

¹ Further details, including the source of the thresholds used to define the EMBA in this table, are provided in Section 7.8.1

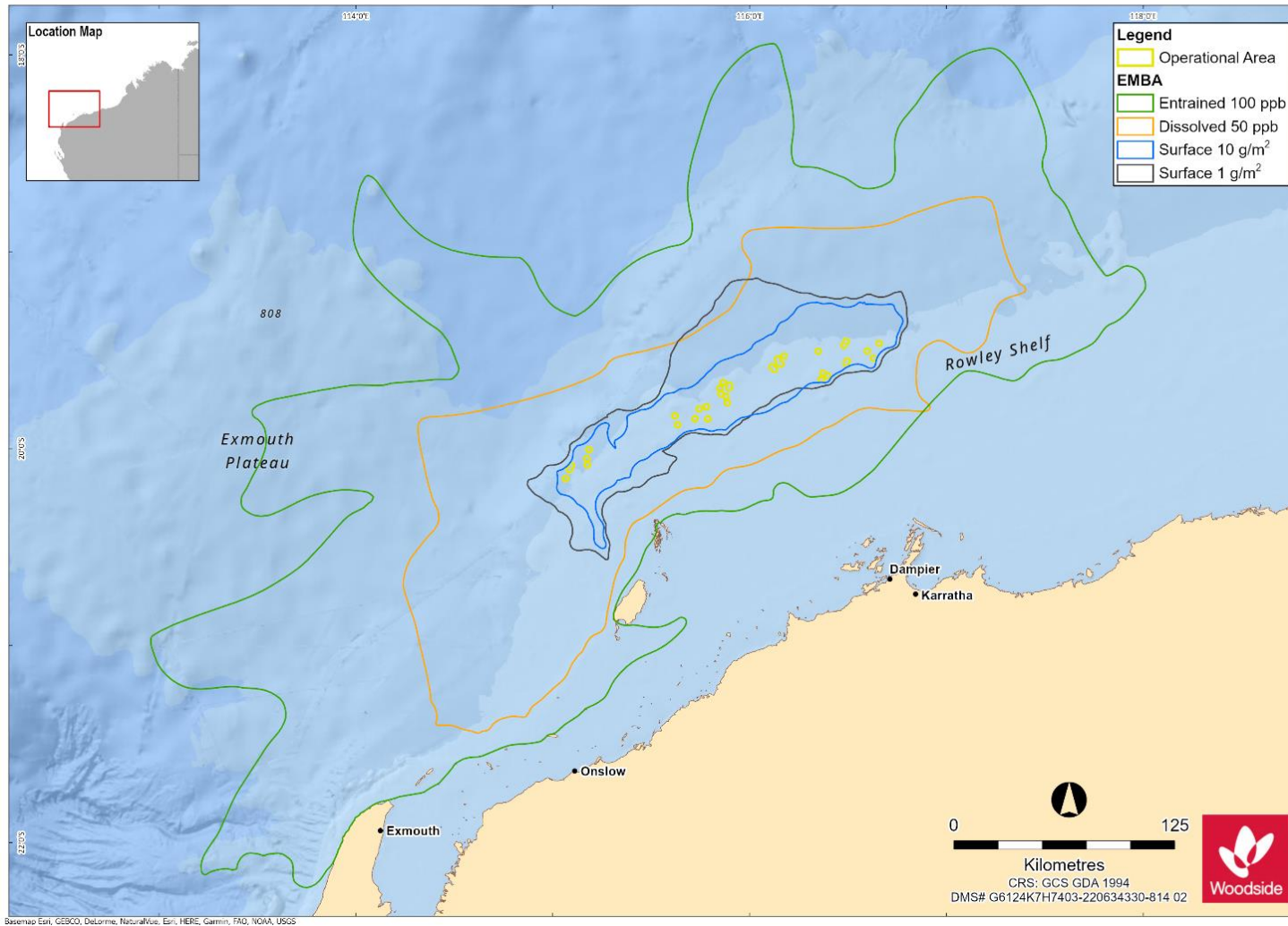


Figure 5-1: EMBA by the Petroleum Activities Program

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5.1.2 Regional Context

Thirty-six Operational Areas are located in Commonwealth waters within the North-west Marine Region (NWMR), as defined under the Integrated Marine and Coastal Regionalisation of Australia (v4.0) (Commonwealth of Australia, 2006), in water depths between 69 and 177 m (Table 4-2). Within the NWMR, the Operational Areas lie within the NWS Province (Figure 5-2). Section 2 of the Master Existing Environment summarised the characteristics for the relevant marine bioregions.

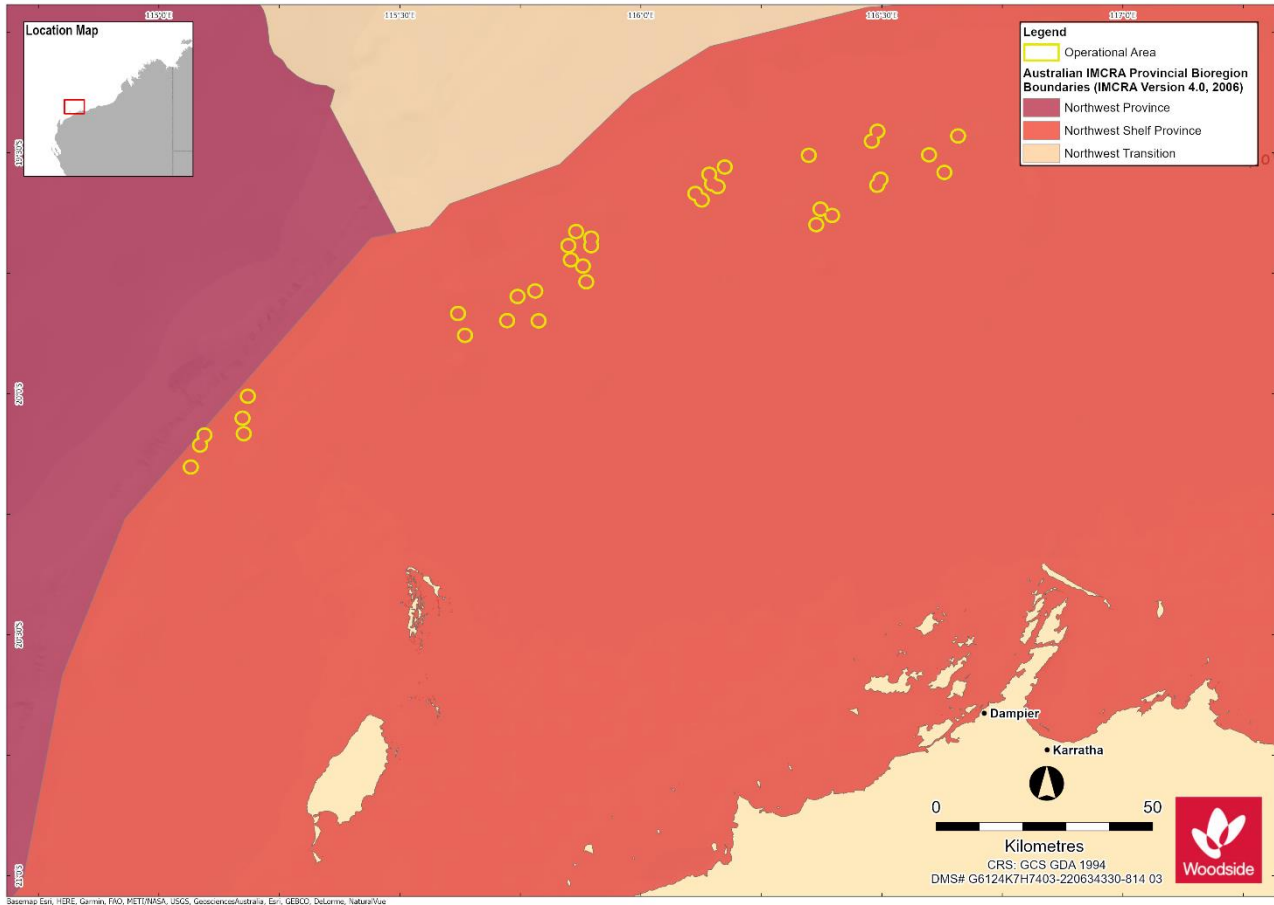


Figure 5-2: Location of the Operational Areas and relevant marine bioregions

5.1.3 Matters of National Environmental Significance (Environment Protection and Biodiversity Conservation Act)

Table 5-2 and Table 5-3 summarise the MNES overlapping the Operational Areas and EMBA, respectively, according to Protected Matters Search Tool (PMST) results (Appendix C). It should be noted the EPBC Act PMST is a general database that conservatively identifies areas in which protected species have the potential to occur.

Additional information on these MNES is provided in subsequent sections of this chapter and are described in detail in Section 3 of the Master Existing Environment.

Table 5-2: Summary of matters of national environmental significance identified by the *Environment Protection and Biodiversity Conservation Act* Protected Matters Search Tool as potentially occurring within the Operational Areas

MNES	Number	Relevant Section
World Heritage Properties	0	N/A
National Heritage Places	0	N/A
Wetlands of International Importance (Ramsar)	0	N/A
Commonwealth Marine Area	1	Section 5.5
Listed Threatened Ecological Communities	0	N/A
Listed Threatened Species	24	Section 5.3 and Sections 3 to 8 of the Master Existing Environment
Listed Migratory Species	37	Section 5.3 and Sections 3 to 8 of the Master Existing Environment

Table 5-3: Summary of matters of national environmental significance identified by the *Environment Protection and Biodiversity Conservation Act* Protected Matters Search Tool as potentially occurring within the EMBA

MNES	Number	Relevant Section
World Heritage Properties	1	Section 5.6
National Heritage Places	1	Section 5.6
Wetlands of International Importance (Ramsar)	0	N/A
Commonwealth Marine Area	2	Section 5.5
Listed Threatened Ecological Communities	0	N/A
Listed Threatened Species	51	Section 5.3 and Sections 3 to 8 of the Master Existing Environment
Listed Migratory Species	65	Section 5.3 and Sections 3 to 8 of the Master Existing Environment

5.1.4 Physical Environment

The Operational Areas are located in Commonwealth waters within the Northwest Shelf Province, where water depths range between 0 and 200 m (DEWHA, 2008; DSEWPaC, 2012) (Figure 5-2). Water depths of the Operational Areas vary between 69 and 177 m (Figure 5-3). The NWS is located primarily on the continental shelf between North West Cape and Cape Bougainville. It varies in width from about 50 km at Exmouth Gulf to more than 250 km off Cape Leveque and covers an area of 238,759 km² (DEWHA, 2008).

A description of the marine sediments of each Operational Area is provided in Table 5-4. Section 2 of the Master Existing Environment provides a summary of the physical characteristics of the environment within the EMBA.

Table 5-4: Marine sediments of the Operational Areas

Well	Petroleum Title	Water depth (m)	Description of marine sediments
Balnaves Deep-1	WA-49-L	135	Seabed surveys in the vicinity of the Operational Areas found the area is dominated by soft sediment (fine to coarse sands) (Neptune Geomatics, 2010; RPS, 2010a, 2011), similar to previous surveys within the Northwest Shelf Province and nearby fields at similar water depths (RPS <i>et al.</i> , 2004; Chevron, 2005, 2010; RPS, 2010b, 2011). Seabed relief in
Brulimar-1		171	
Brunello-1ST1		151	
Grange-1-WA		177	

Well	Petroleum Title	Water depth (m)	Description of marine sediments
Julimar South East-1		156	areas of bare sediment consisted mainly of 'small ripples' less than 0.1 m high, which is consistent with tidally-driven bottom currents. Sediments at the nearby Balnaves field also showed soft sediments (fine silt and mud) (RPS, 2011).
Julimar East-1		171	
Angel-1	WA-3-L	80	Operational Areas are in the vicinity of the Angel Platform, where sediments are expected to be comprised primarily of fine sands, very fine sands and silt. Coarse material, particularly marine-derived sediments with high carbonate content and gravels of weathered coralline algae and shells associated with the Glomar Shoals (McLoughlin and Young, 1985), may also be present. This is likely to be relevant to the Angel-3 wellhead which overlaps the Glomar Shoals key ecological feature (KEF) (see Section 5.4).
Angel-2		87	
Angel-3		69	
Cossack-1	WA-9-L	82	The seabed in the vicinity of the Okha FPSO is typical of deeper offshore areas on the NWS, being characterised by deep (more than 5 m), soft, silty sediments derived primarily from calcium carbonate, which become deeper, softer and finer with increasing depth.
Cossack-6ST1		79	
Madeleine-1	WA-11-L	69	
Walcott-1		81	
Wanaea-4		75	
Lambert-1	WA-16-L	125	
Lambert 5ST1		116	
Egret-1	WA-52-L	118	
North Rankin-1	WA-1-L	122	
North Rankin-2		126	
North Rankin-3		126	
North Rankin-4		127	
North Rankin-5		123	
North Rankin-6		124	
Goodwyn-1	WA-5-L	126	Although the Goodwyn platform overlaps the Ancient Coastline at 125 m Depth Contour ('Ancient Coastline') KEF (see Section 5.4), seabed sampling has confirmed sediments comprise coarse sands, silts, fine sands and some gravel. It is expected that results of the seabed sampling are representative of these Operational Areas.
Goodwyn-2		133	
Goodwyn-3		120	The exception is Dockrell-1, which is located approximately 15 km south-west of the Goodwyn platform, where information is lacking.
Goodwyn-4		130	
Goodwyn-5		128	
Goodwyn-6		124	
Dockrell-1		110	
Tidepole-1		110	
Dixon-1	WA-56-L	85	Targeted sampling is lacking for these Operational Areas; however, the lack of overlap with the Ancient Coastline KEF, or other known seabed feature, suggests Operational Areas will be representative of soft sandy sediment, typical of the NWS.
Lady Nora-2	WA-57-L	75	
Lowendal-1		85	
Haycock-1	WA-58-L	85	
Rankin-1	WA-24-L	93	

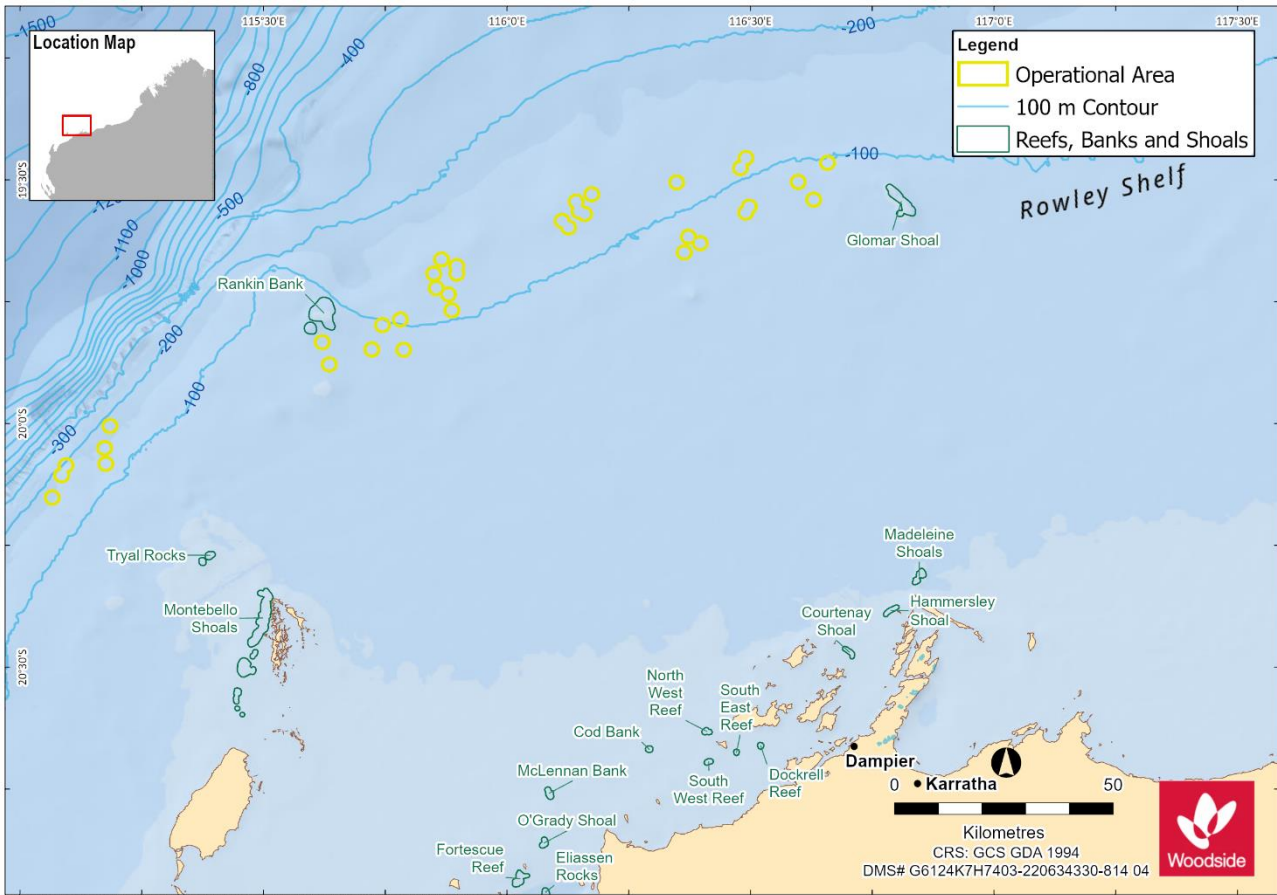


Figure 5-3: Bathymetry of the Operational Areas

5.2 Habitats and Biological Communities

Key habitats and ecological communities within the EMBA are identified in Table 5-5 and described in Section 4 of the Master Existing Environment.

Table 5-5: Habitats and communities within the EMBA

Habitat/Community	Key Locations Within the EMBA and Distance from Operational Area
Marine primary producers	
Coral	<ul style="list-style-type: none"> Glomar Shoals (overlaps with Angel-3 Operational Area) Rankin Bank (10 km north of Lady Nora-1) Montebello Island group (50 km south-west of Balnaves Deep-1) Barrow Island (70 km south-west of Julimar South East-1) Ningaloo Coast world heritage area (WHA) (incl. Muiron Islands) (175 km south-west of Julimar South East-1). <p>Coral reef habitats within the EMBA are described in Section 4.5 of the Master Existing Environment.</p>
Seagrass beds and macroalgae	<ul style="list-style-type: none"> Glomar Shoals (overlaps with Angel-3 Operational Area) Rankin Bank (10 km north of Lady Nora-1) Montebello Island group (50 km south-west of Balnaves Deep-1). <p>Seagrass beds and macroalgae are described in Section 4.5 of the Master Existing Environment.</p>
Mangroves	These coastal habitats are not found within the Operational Areas or EMBA.

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Habitat/Community	Key Locations Within the EMBA and Distance from Operational Area
Other communities and habitats	
Plankton	Phytoplankton within the Operational Areas and EMBA is expected to reflect the distribution and abundance of the NWMR. Refer to Section 4.3 of the Master Existing Environment.
Pelagic and demersal fish populations	Fish populations within the Operational Areas and EMBA are expected to reflect the distribution and abundance of the NWMR. Refer to Section 5.5 of the Master Existing Environment.
Epifauna and infauna	<p>Surveys of seabed sediments from around the Goodwyn Platform, North Rankin Complex, Angel Platform and export pipeline routes (Sinclair Knight Merz, 2006) suggest epifauna and infauna within the Operational Areas will broadly reflect the distribution and abundance of the NWMR.</p> <p>Increased abundance and diversity of sessile organisms may be associated with Rankin Bank (6 km north of Lady Nora-2), Glomar Shoals (Angel-3 Operational Area overlaps the KEF) and the Ancient Coastline (overlapping Dockrell-1, Goodwyn-1, Goodwyn-2, Goodwyn-3, Goodwyn-4, Goodwyn-5, Goodwyn-6, North Rankin-1, North Rankin-2, North Rankin-3, North Rankin-4, North Rankin-5, North Rankin-6, Lambert-1, Balnaves Deep-1). Refer to Section 5.5 of the Master Existing Environment.</p>

5.3 Protected Species

A total of 65 EPBC Act species as listed threatened, migratory, or both threatened and migratory, considered to be MNES were identified as potentially occurring within the EMBA, of which a subset of 37 species were identified as potentially occurring within the Operational Areas. The full list of marine species identified from the PMST report(s) is provided in Appendix C, including several MNES that are not considered to be credibly impacted (such as terrestrial species within the EMBA). Two conservation-dependent species have been identified with a potential to occur within the EMBA: the southern bluefin tuna and the scalloped hammerhead shark. Species identified as potentially occurring within the Operational Areas and EMBA and biologically important areas (BIAs) or Habitat Critical to their Survival (Habitat Critical) which overlap the Operational Areas and EMBA are listed in Table 5-6 to Table 5-14, and a description of species is included in Sections 5 to 8 of the Master Existing Environment. Figure 5-4 to Figure 5-7 show the spatial overlap with relevant BIAs and Habitat Critical areas and the Operational Areas and EMBA.

5.3.1 Fish, Sharks and Ray

Table 5-6: Threatened and Migratory fish, shark and ray species predicted to occur within the Operational Areas and EMBA

Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
Anoxypristis cuspidata	Narrow Sawfish	N/A	Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Carcharhinus longimanus	Oceanic Whitetip Shark	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Carcharias taurus (west coast population)	Grey Nurse Shark (West Coast Population)	Vulnerable	N/A	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Carcharodon carcharias	Great White Shark	Vulnerable	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
Isurus oxyrinchus	Shortfin Mako	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Isurus paucus	Longfin Mako	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Lamna nasus	Porbeagle, Mackerel Shark	N/A	Migratory	N/A	Species or species habitat may occur within area
Milyeringa veritas	Blind Gudgeon	Vulnerable	N/A	N/A	Species or species habitat known to occur within area
Mobula alfredi	Reef Manta Ray	N/A	Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Mobula birostris	Giant Manta Ray	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
Pristis clavata	Dwarf Sawfish	Vulnerable	Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Pristis pristis	Freshwater Sawfish	Vulnerable	Migratory	Species or species habitat may occur within area	Species or species habitat likely to occur within area

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Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
Pristis zijsron	Green Sawfish	Vulnerable	Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Rhincodon typus	Whale Shark	Vulnerable	Migratory	Foraging, feeding or related behaviour known to occur within area	Foraging, feeding or related behaviour known to occur within area
Sphyrna lewini	Scalloped Hammerhead	Conservation Dependent	N/A	N/A	Species or species habitat known to occur within area
Thunnus maccoyii	Southern Bluefin Tuna	Conservation Dependent	N/A	N/A	Breeding known to occur within area

Table 5-7: Fish, shark and ray biologically important areas within the Operational Areas and the EMBA

Species	BIA type	Approximate Distance and Direction of BIA from Operational Areas (km)
Whale Shark	Foraging (northward from Ningaloo along 200 m isobath)	Overlaps all 36 Operational Areas
	Foraging (high-density prey) (Ningaloo Marine Park and adjacent Commonwealth waters)	215 km south-southeast (Julimar South East-1)

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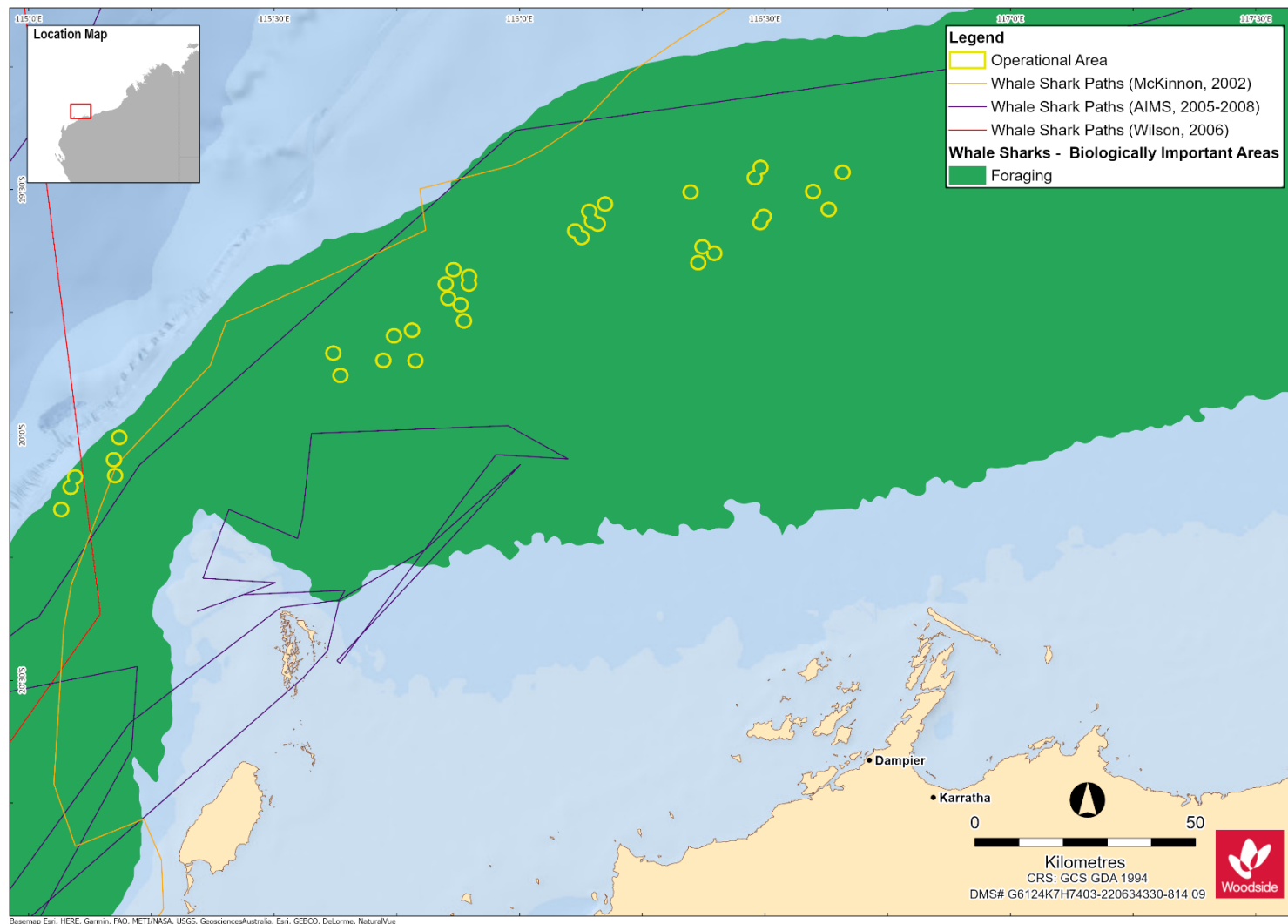


Figure 5-4: Whale shark biologically important areas overlapping the Operational Areas and the EMBA and satellite tracks of whale sharks tagged between 2005 and 2008 (Meekan and Radford, 2010)

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5.3.2 Marine Reptiles

Table 5-8: Threatened and Migratory marine reptile species predicted to occur within the Operational Areas and the EMBA

Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
Aipysurus apraefrontalis	Short-nosed Seasnake	Critically Endangered	N/A	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Aipysurus foliosquama	Leaf-scaled Seasnake	Critically Endangered	N/A	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
Caretta caretta	Loggerhead Turtle	Endangered	Migratory	Species or species habitat known to occur within area	Breeding known to occur within area
Chelonia mydas	Green Turtle	Vulnerable	Migratory	Species or species habitat known to occur within area	Breeding known to occur within area
Dermochelys coriacea	Leatherback Turtle	Endangered	Migratory	Species or species habitat likely to occur within area	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata	Hawksbill Turtle	Vulnerable	Migratory	Species or species habitat known to occur within area	Breeding known to occur within area
Natator depressus	Flatback Turtle	Vulnerable	Migratory	Species or species habitat known to occur within area	Breeding known to occur within area

Table 5-9: Marine turtle biologically important areas within the Operational Areas or the EMBA

Species	BIA Type	Approximate Distance and Direction of BIA from Operational Areas (km)
Flatback turtle	Interesting (coral reef habitat west of the Montebello group; extends the entire length of Montebellos)	50 km south-southeast (SSE) (Julimar South East-1)

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Species	BIA Type	Approximate Distance and Direction of BIA from Operational Areas (km)
	Interesting buffer (Dixon Island, Intercourse Island, Montebello Islands, Hermite Islands, NW Island, Trimouille Island, Dampier Archipelago (islands to the west of the Burrup Peninsula, Legendre Island, Huay Island, Delambre Island, Thevenard Island – south coast, west of Cape Lambert))	Overlaps 17 Operational Areas: <ul style="list-style-type: none"> • Julimar South East-1 • Julimar East-1 • Balnaves Deep-1 • Grange-1 • Brunello-1ST1 • Brulimar-1 • Lady Nora-2 • Lowendal-1 • Haycock-1 • Dixon-1 • Rankin-1 • Dockrell-1 • Tidepole-1 • Goodwyn-3 • Goodwyn-6 • Goodwyn-4 • Goodwyn-1
	Aggregation (coral reef habitat west of the Montebello group; extends the entire length of Montebellos)	50 km SSE (Julimar South East-1)
	Mating (coral reef habitat west of the Montebello group; extends the entire length of Montebellos, Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island)	50 km SSE (Julimar South East-1)
	Nesting (Thevenard Island – south coast, Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island)	50 km SSE (Julimar South East-1)
Green turtle	Interesting (Montebello Islands, Barrow Island, coral reef habitat west of the Montebello group; extends the entire length of Montebellos)	45 km SSE (Julimar South East-1)
	Interesting buffer (Montebello Islands, Hermite Islands, North West Island, Trimouille Island, North West Cape, North and South Muiron Island, Middle Island West Coast, Barrow Island West Coast and North Coast)	20 km SSE (Balnaves Deep-1)

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Species	BIA Type	Approximate Distance and Direction of BIA from Operational Areas (km)
	Mating (Middle Island West Coast, Barrow Island West Coast and North Coast, Montebello Islands, Hermite Islands, North West Island, Trimouille Island, coral reef habitat west of the Montebello group; extends the entire length of Montebellos)	40 km SSE (Balnaves Deep-1)
	Nesting (Middle Island West Coast, Barrow Island West Coast and North Coast, Montebello Islands, Hermite Islands, North West Island, Trimouille Island, North West Cape, North and South Muiron Island)	40 km SSE (Balnaves Deep-1)
	Foraging (coral reef habitat west of the Montebello group; extends the entire length of Montebellos, Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island)	40 km SSE (Balnaves Deep-1)
	Aggregation (coral reef habitat west of the Montebello group; extends the entire length of Montebellos)	50 km SSE (Balnaves Deep-1)
	Basking (Middle Island West Coast, Barrow Island West Coast and North Coast)	70 km SSE (Julimar South East-1)
Hawksbill turtle	Interesting buffer (Montebello Islands, North West Island, Trimouille Island, Ah Chong and South East Island, Barrow Island, Ningaloo coast and Jurabi coast, Hermite Island, Thevenard Island, Varanus Island)	25 km SSE (Balnaves Deep-1)
	Mating (Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island)	45 km SSE (Balnaves Deep-1)
	Nesting (Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island, Thevenard Island, Ningaloo coast and Jurabi coast)	45 km SSE (Balnaves Deep-1)
	Foraging (Montebello Islands, Hermite Islands, North West Island, Trimouille Island, Barrow Island)	45 km SSE (Balnaves Deep-1)
Loggerhead turtle	Interesting buffer (Montebello Islands, Muiron Island, Ningaloo coast and Jurabi coast, Lowenthal Island)	32 km SSE (Balnaves Deep-1)
	Nesting (Montebello Islands, Muiron Island, Ningaloo coast and Jurabi coast)	175 km south-southwest (SSW) (Balnaves Deep-1)

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Table 5-10: Habitat Critical to the survival of marine turtle species predicted to occur within Operational Areas or the EMBA

Species	Genetic Stock	Nesting Locations	Approximate Distance and Direction from Operational Areas (km)	Interesting Buffer	Nesting Period	Hatching Period
Green Turtle	North West Cape	Barrow Island, Montebello Islands, Serrier Island and Thevenard Island. A 20 km interesting buffer. Exmouth Gulf and Ningaloo coast. A 20 km interesting buffer.	25 km SSE	20 km	Nov to Mar	Jan to May (peak: Feb to Mar)
Loggerhead Turtle	Western Australia	Exmouth Gulf and Ningaloo coast.	185 km SSW	20 km	Nov to May (peak: Jan)	Jan to May
Flatback Turtle	Pilbara	Barrow Island, Montebello Islands, coastal islands from Cape Preston to Locker Island. A 60 km interesting buffer. Dampier Archipelago, including Delambre Island and Hauty Island. A 60 km interesting buffer.	Overlaps nine Operational Areas: <ul style="list-style-type: none"> • Julimar South East-1 • Julimar East-1 • Grange-1 • Balnaves Deep-1 • Brunello-1ST1 • Brulimar-1 • Lowendal-1 • Lady Nora-2 • Haycock-1 	60 km	Oct to Mar (peak: Feb to Mar)	Oct to Mar
Hawksbill Turtle	Western Australia	Cape Preston to mouth of Exmouth Gulf, including Montebello Islands and Lowendal Islands. A 20 km interesting buffer.	25 km SSE	20 km	All year (peak: Oct to Feb)	All year (peak: Dec to Feb)
Leatherback Turtle	No overlap – nesting located in Northern Territory and North Queensland.					
Olive Ridley Turtle	No overlap – nesting located in Northern Australia and North Queensland.					

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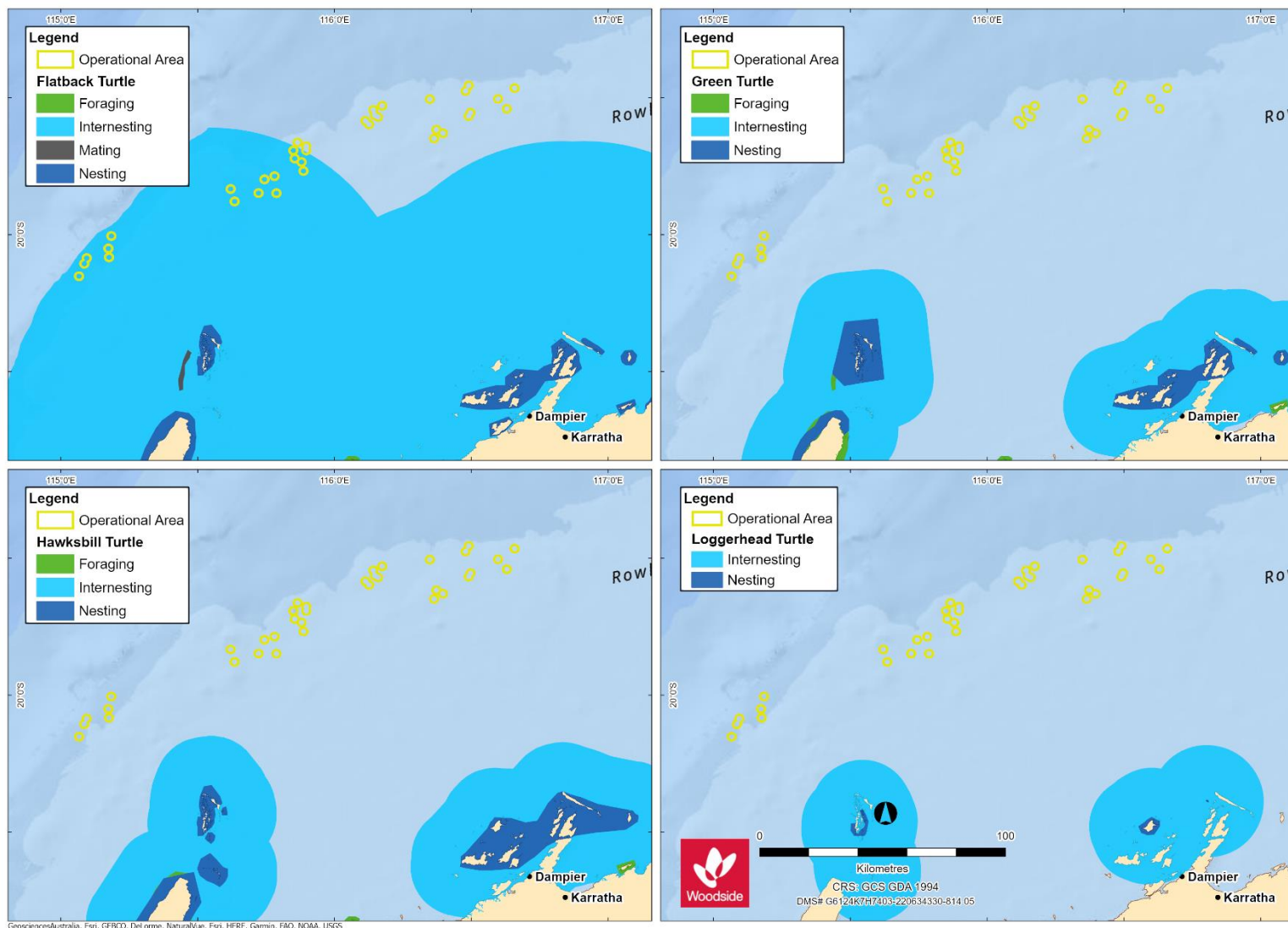


Figure 5-5: Marine reptile biologically important areas overlapping the EMBA

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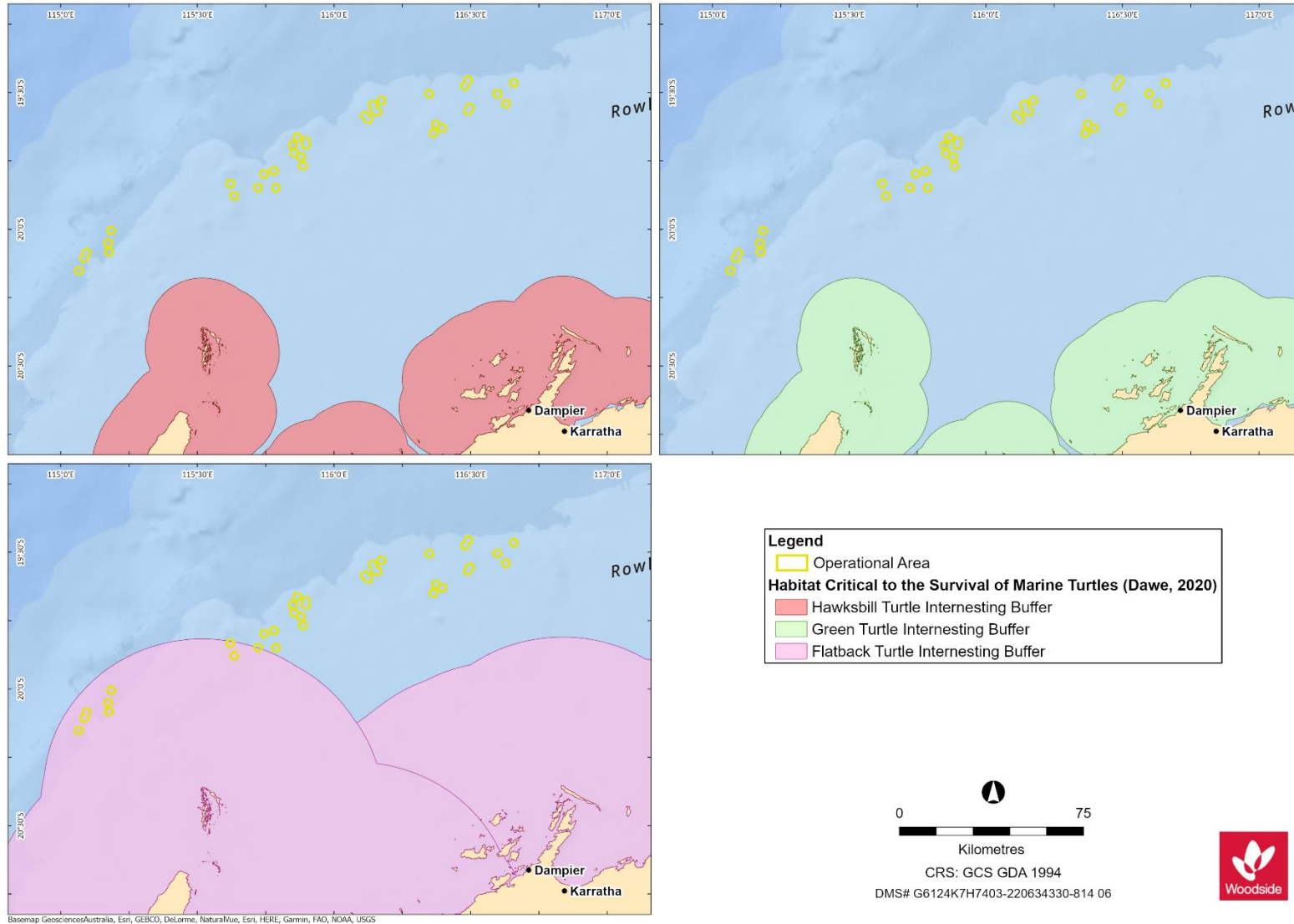


Figure 5-6: Habitat Critical to the survival of marine turtles overlapping the EMBA

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5.3.3 Marine Mammals

Table 5-11: Threatened and Migratory marine mammal species predicted to occur within the Operational Areas and the EMBA

Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
<i>Balaenoptera bonaerensis</i>	Antarctic Minke Whale, Dark-shoulder Minke Whale	N/A	Migratory	N/A	Species or species habitat likely to occur within area
<i>Balaenoptera borealis</i>	Sei Whale	Vulnerable	Migratory	Species or species habitat likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
<i>Balaenoptera edeni</i>	Bryde's Whale	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
<i>Balaenoptera musculus</i>	Blue Whale	Endangered	Migratory	Migration route known to occur within area	Migration route known to occur within area
<i>Balaenoptera physalus</i>	Fin Whale	Vulnerable	Migratory	Species or species habitat likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
<i>Dugong dugon</i>	Dugong	N/A	Migratory	N/A	Breeding known to occur within area
<i>Eubalaena australis</i>	Southern Right Whale	Endangered	Migratory	N/A	Species or species habitat likely to occur within area
<i>Megaptera novaeangliae</i>	Humpback Whale	N/A	Migratory	Breeding known to occur within area	Breeding known to occur within area
<i>Orcinus orca</i>	Killer Whale, Orca	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Physeter macrocephalus</i>	Sperm Whale	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Sousa sahalensis</i>	Australian Humpback Dolphin	N/A	Migratory (as <i>Sousa chinensis</i>)	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Tursiops aduncus</i> (Arafura/Timor Sea populations)	Spotted Bottlenose Dolphin (Arafura/Timor Sea populations)	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat known to occur within area

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Table 5-12: Marine mammal biologically important areas within the Operational Areas or the EMBA

Species	BIA Type	Approximate Distance and Direction from Operational Areas (km)
Humpback Whale	Migration (north and south)	15 km south (Dixon-1)
Pygmy Blue Whale	Distribution	Overlaps all Operational Areas
	Foraging (Ningaloo)	215 km SSW (Julimar South East-1)
	Migration	Overlaps Grange-1
Dugong	Breeding (Exmouth Gulf)	195 km SSW (Julimar South East-1)
	Calving (Exmouth Gulf)	195 km SSW (Julimar South East-1)
	Foraging (high density seagrass beds) (Exmouth Gulf)	195 km SSW (Julimar South East-1)

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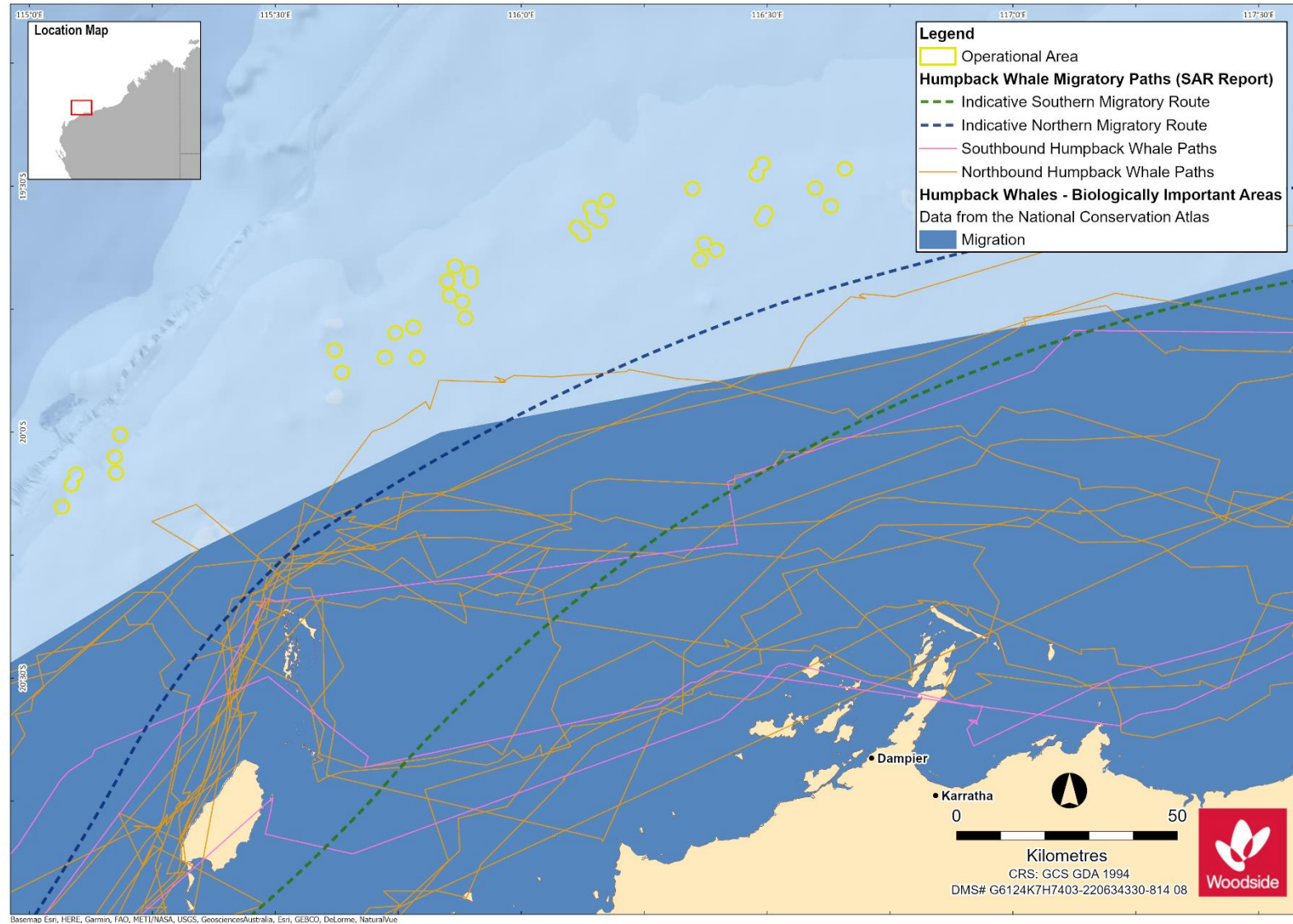


Figure 5-7: Humpback whale biologically important areas overlapping the EMBA

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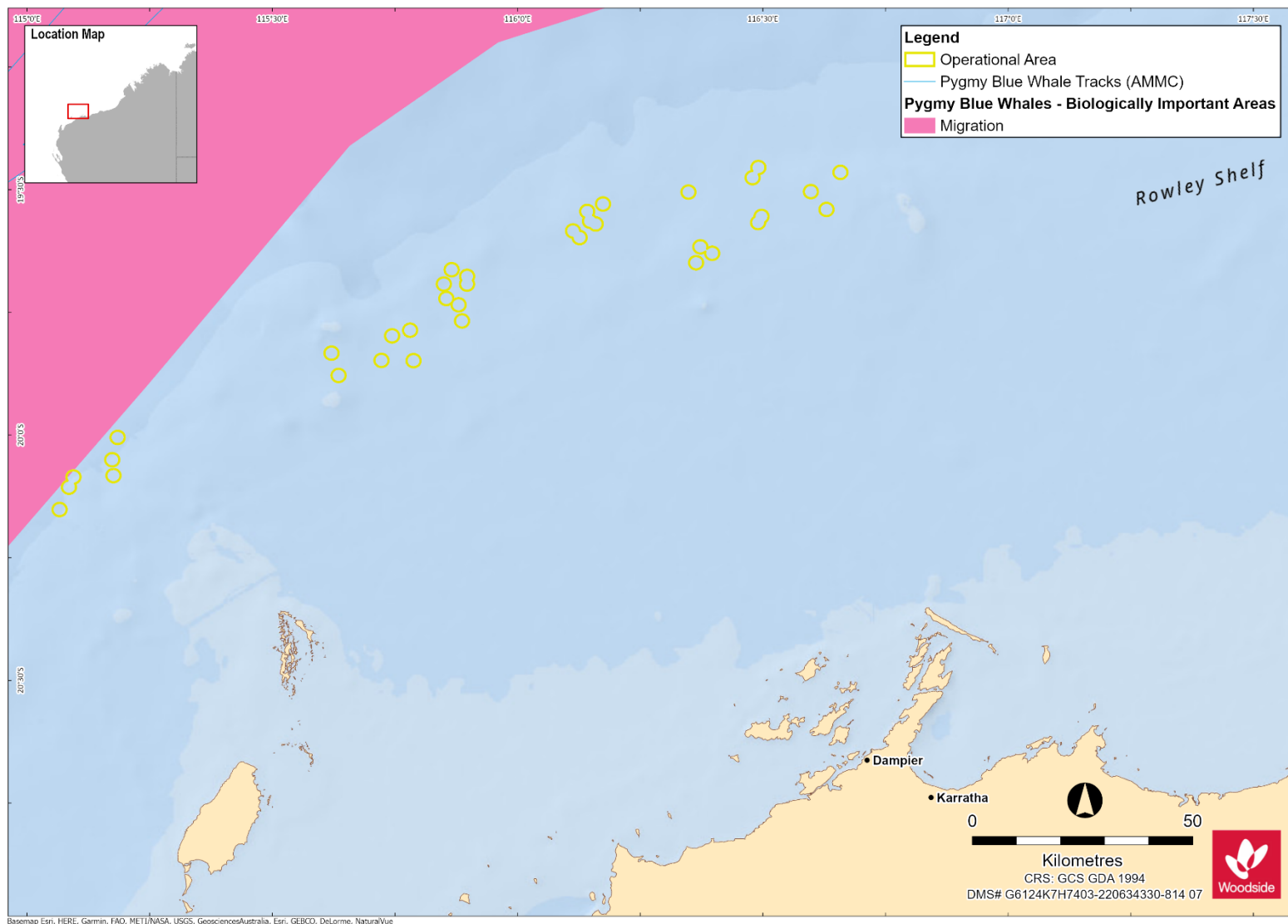


Figure 5-8: Pygmy blue whale biologically important areas overlapping the Grange-1 Operational Area and the EMBA

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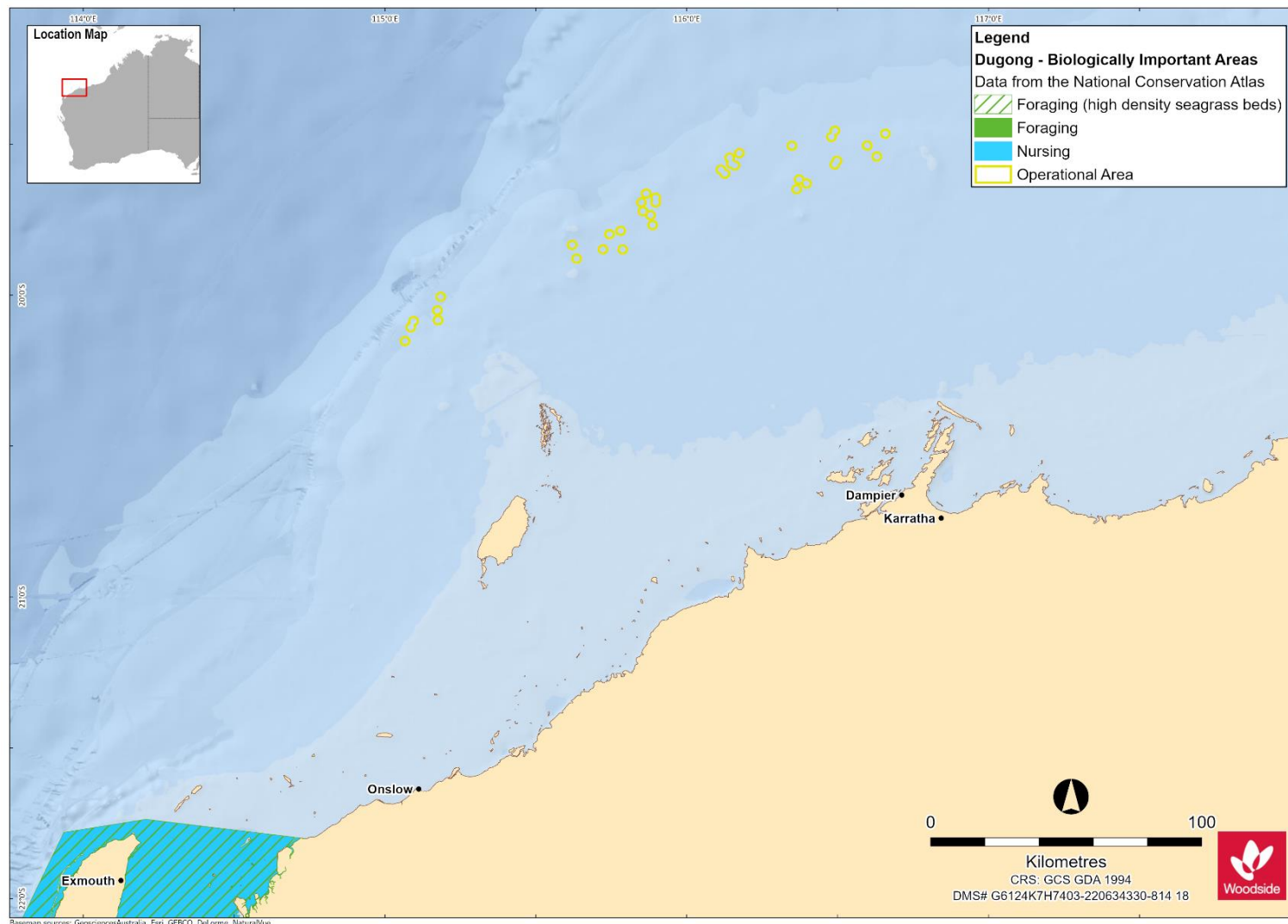


Figure 5-9: Dugong biologically important areas overlapping the EMBA

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5.3.4 Seabirds and Migratory Shorebirds

Table 5-13: Threatened and Migratory seabird and migratory shorebird species predicted to occur within the Operational Areas and the EMBA

Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
<i>Actitis hypoleucos</i>	Common Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Anous stolidus</i>	Common Noddy	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat likely to occur within area
<i>Apus pacificus</i>	Fork-tailed Swift	N/A	Migratory	N/A	Species or species habitat likely to occur within area
<i>Ardenna carneipes</i>	Flesh-footed Shearwater, Fleshy-footed Shearwater	N/A	Migratory	N/A	Species or species habitat likely to occur within area
<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	N/A	Migratory	N/A	Breeding known to occur within area
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Calidris canutus</i>	Red Knot, Knot	Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Calidris melanotos</i>	Pectoral Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Calonectris leucomelas</i>	Streaked Shearwater	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
<i>Chalcites osculans</i>	Black-eared Cuckoo	N/A	Migratory	N/A	Species or species habitat known to occur within area
<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover	Vulnerable	Migratory	N/A	Species or species habitat known to occur within area
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel	N/A	Migratory	N/A	Species or species habitat may occur within area

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Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
Fregata ariel	Lesser Frigatebird, Least Frigatebird	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
Fregata minor	Great Frigatebird, Greater Frigatebird	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Glareola maldivarum	Oriental Pratincole	N/A	Migratory	N/A	Species or species habitat may occur within area
Hydroprogne caspia	Caspian Tern	N/A	Migratory	N/A	Breeding known to occur within area
Limnodromus semipalmatus	Asian Dowitcher	N/A	Migratory	N/A	Species or species habitat known to occur within area
Limosa lapponica	Bar-tailed Godwit	N/A	Migratory	N/A	Species or species habitat known to occur within area
Limosa lapponica menzbieri	Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit	Critically Endangered	Migratory	N/A	Species or species habitat known to occur within area
Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel	Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Motacilla cinerea	Grey Wagtail	N/A	Migratory	N/A	Species or species habitat may occur within area
Motacilla flava	Yellow Wagtail	N/A	Migratory	N/A	Species or species habitat may occur within area
Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew	Critically Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat known to occur within area
Onychoprion anaethetus	Bridled Tern	N/A	Migratory	N/A	Breeding known to occur within area
Pandion haliaetus	Osprey	N/A	Migratory	N/A	Breeding known to occur within area
Papasula abbotti	Abbott's Booby	Endangered	N/A	N/A	Species or species habitat may occur within area
Pezoporus occidentalis	Night Parrot	Endangered	N/A	N/A	Species or species habitat may occur within area

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Species Name	Common Name	Threatened Status	Migratory Status	Potential for Interaction	
				Operational Areas	EMBA
Phaethon lepturus	White-tailed Tropicbird	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
Phaethon lepturus fulvus	Christmas Island White-tailed Tropicbird, Golden Bosunbird	Endangered	N/A	Species or species habitat may occur within area	Species or species habitat may occur within area
Pterodroma mollis	Soft-plumaged Petrel	Vulnerable	N/A	N/A	Foraging, feeding or related behaviour likely to occur within area
Rostratula australis	Australian Painted Snipe	Endangered	N/A	N/A	Species or species habitat likely to occur within area
Sterna dougallii	Roseate Tern	N/A	Migratory	N/A	Breeding known to occur within area
Sternula albifrons	Little Tern	N/A	Migratory	N/A	Species or species habitat may occur within area
Sternula nereis nereis	Australian Fairy Tern	Vulnerable	N/A	Foraging, feeding or related behaviour likely to occur within area	Breeding known to occur within area
Sula leucogaster	Brown Booby	N/A	Migratory	N/A	Breeding known to occur within area
Thalassarche carteri	Indian Yellow-nosed Albatross	Vulnerable	Migratory	N/A	Species or species habitat may occur within area
Thalassarche cauta	Shy Albatross	Endangered	Migratory	N/A	Species or species habitat may occur within area
Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross	Vulnerable	Migratory	N/A	Species or species habitat may occur within area
Thalassarche melanophris	Black-browed Albatross	Vulnerable	Migratory	N/A	Species or species habitat may occur within area
Thalassarche steadi	White-capped Albatross	Vulnerable	Migratory	N/A	Species or species habitat may occur within area
Thalasseus bergii	Greater Crested Tern	N/A	Migratory	N/A	Breeding known to occur within area
Tringa nebularia	Common Greenshank, Greenshank	N/A	Migratory	N/A	Species or species habitat likely to occur within area

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Table 5-14: Seabird and shorebird biologically important areas within the Operational Areas or the EMBA

Species	BIA Type	Approximate Distance and Direction from Operational Areas (km)
Wedge-tailed Shearwater	Breeding and foraging (Kimberley, Pilbara and Gascoyne coasts and islands, including Ashmore Reef)	Overlaps 22 Operational Areas: <ul style="list-style-type: none"> • Julimar South East-1 • Julimar East-1 • Balnaves Deep-1 • Grange-1 • Brunello-1ST1 • Brulimar-1 • Lady Nora-2 • Lowendal-1 • Haycock-1 • Dixon-1 • Rankin-1 • Dockrell-1 • Tidepole-1 • Goodwyn-3 • Madeleine-1 • Wanaea-4 • Walcott-1 • Cossack-1 • Angel-3 • Angel-1 • Angel-2 • Lambert 5ST1
Fairy Tern	Breeding (Pilbara and Gascoyne coasts and islands)	45 km SSE (Balnaves Deep-1)
Lesser Crested Tern	Breeding (Kimberley, Pilbara and Gascoyne coasts and islands, including Ashmore Reef)	40 km SSE (Balnaves Deep-1)
Roseate Tern	Breeding (Kimberley, Pilbara and Gascoyne coasts and islands, including Ashmore Reef)	45 km SSE (Balnaves Deep-1)

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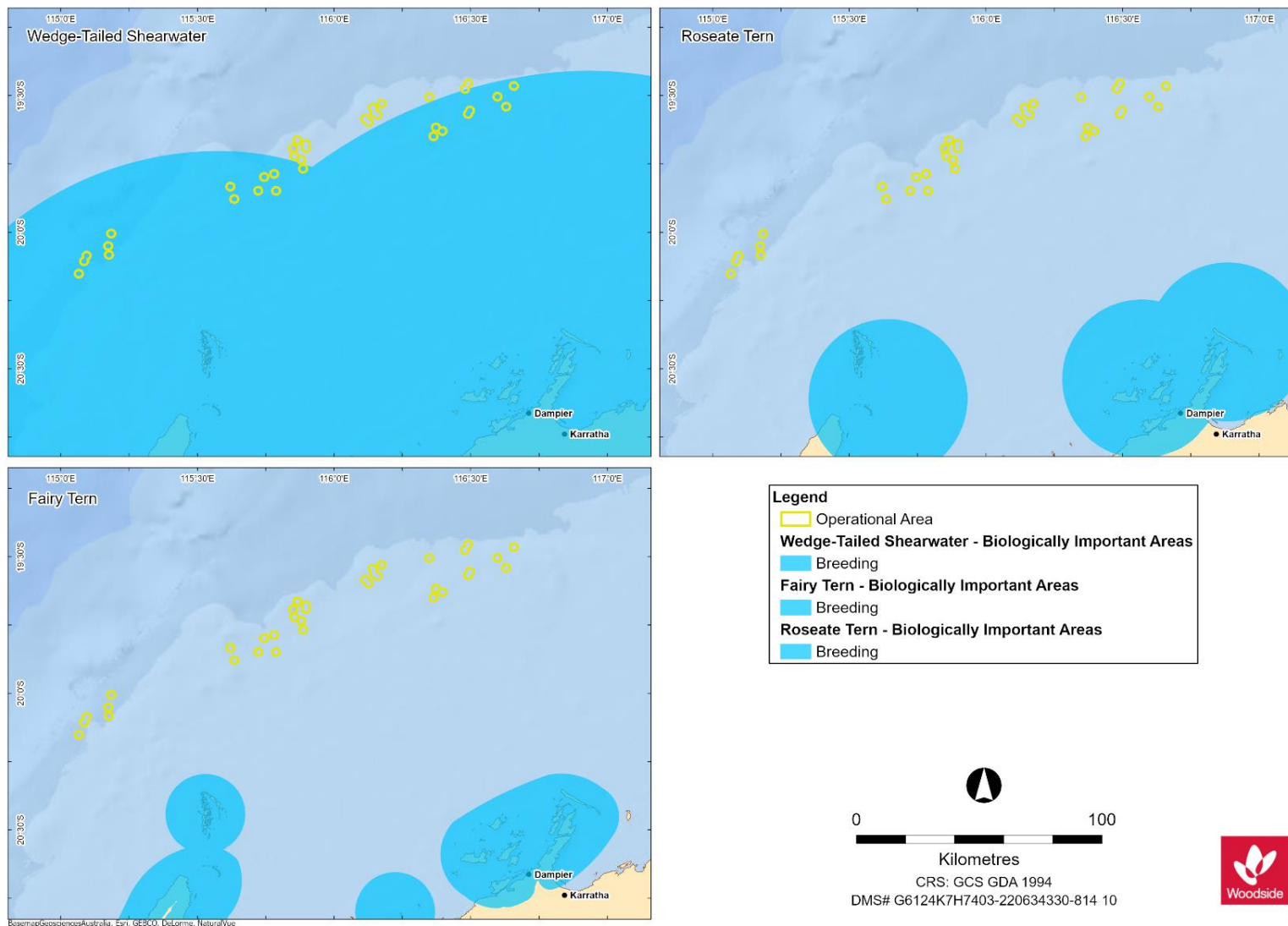


Figure 5-10: Shearwater and tern biologically important areas overlapping the Operational Areas and the EMBA

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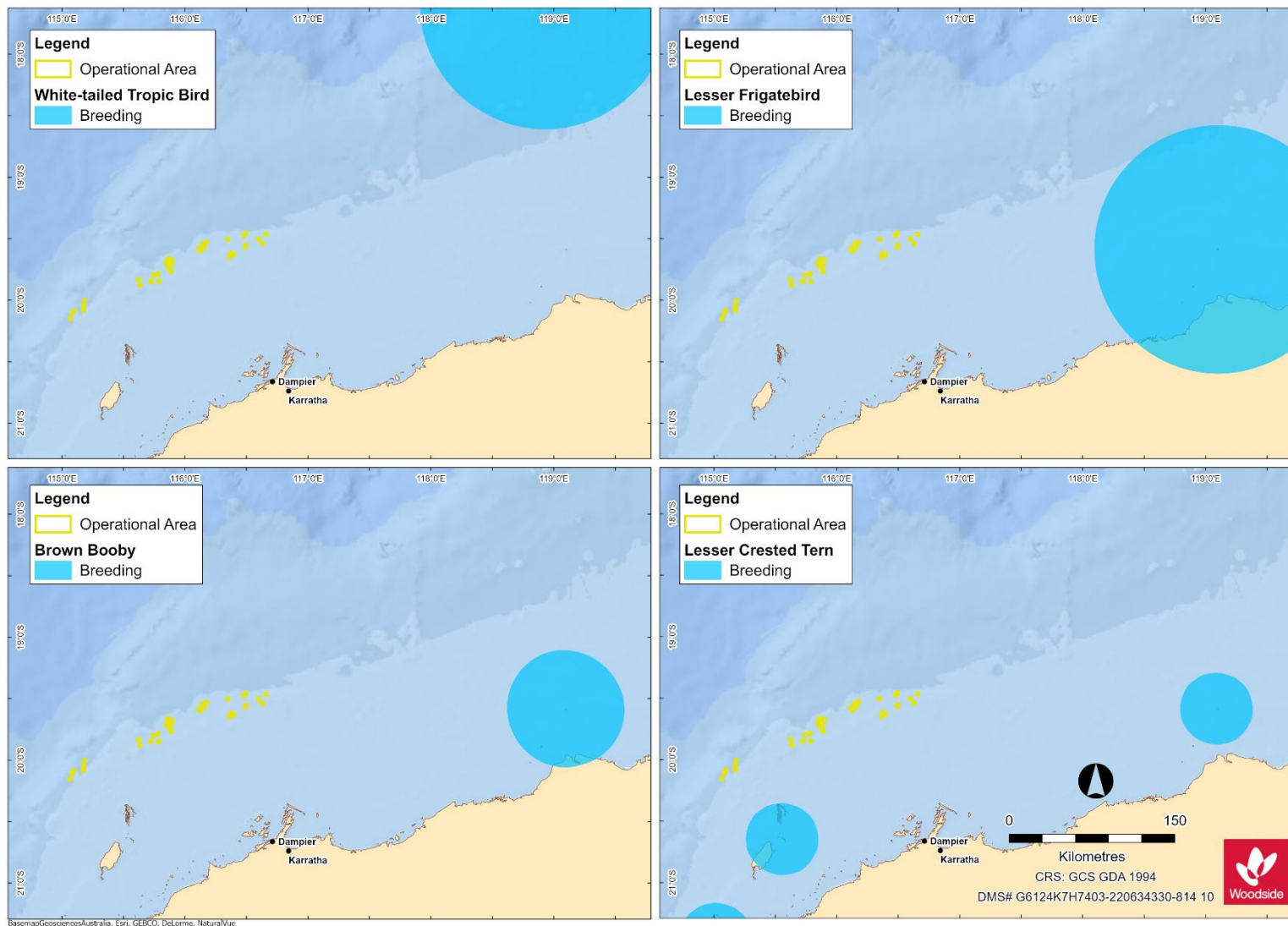


Figure 5-11: Tropic bird and booby biologically important areas overlapping the EMBA

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5.3.5 Seasonal Sensitivities for Protected Species

Periods of the year where one or more Operational Areas may overlap seasonally important habitat (such as for nesting, breeding, foraging or migration) for protected species are presented in Table 5-15. Movement patterns of all protected species identified in Section 5.3 are described in Section 5 of the Master Existing Environment.

Table 5-15: Key seasonal sensitivities for protected migratory species identified as occurring within the Operational Areas

Species	January	February	March	April	May	June	July	August	September	October	November	December
Fish, sharks and rays												
Whale shark – Foraging northward from Ningaloo along the 200 m isobath ¹												
Seabirds												
Wedge-tailed shearwater – Breeding ²												
Marine mammals												
Blue whale – northern migration (Exmouth, Montebello, Scott Reef) ³												
Blue whale – southern migration (Exmouth, Montebello, Scott Reef) ³												
Marine reptiles												
Flatback turtle – various nesting/feeding/hatchlings/mating areas ⁴												
	Species may be present in the Operational Area											
	Peak period. Presence of animals is reliable and predictable each year											

References for species seasonal sensitivities:

1. (CALM, 2005; DSEWPaC, 2012a; Environment Australia, 2002; Sleeman et al., 2010)
2. (Nicholson, 2002)
3. (DSEWPaC, 2012a; McCauley and Jenner, 2010; McCauley, 2011)
4. (Commonwealth of Australia, 2017)

5.4 Key Ecological Features

Two KEFs overlap one or more Operational Areas, being the Ancient Coastline KEF and the Glomar Shoals KEF. These KEFs, and those overlapping the EMBA, are identified in Table 5-16. Figure 5-18 shows the spatial overlap of the KEFs with the Operational Areas and the EMBA (see Section 9 of the Master Existing Environment).

Table 5-16: Key ecological features within the Operational Areas and EMBA

Key Ecological Feature	Distance and Direction from Operational Areas to KEF (km)
Ancient coastline at 125 m depth contour	Overlaps 15 Operational Areas: <ul style="list-style-type: none"> • Dockrell-1 • Goodwyn-1 • Goodwyn-2 • Goodwyn-3 • Goodwyn-4 • Goodwyn-5 • Goodwyn-6 • North Rankin-1 • North Rankin-2 • North Rankin-3 • North Rankin-4 • North Rankin-5 • North Rankin-6 • Lambert-1 • Balnaves Deep-1
Glomar Shoals	Overlaps Angel-3 Operational Area
Continental Slope Demersal Fish Communities	2 km west (Grange-1)
Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula	145 km south-west (SW) (Julimar South East-1)
Commonwealth waters adjacent to Ningaloo Reef	190 km SW (Julimar South East-1)
Exmouth Plateau	90 km north-west (Grange-1)

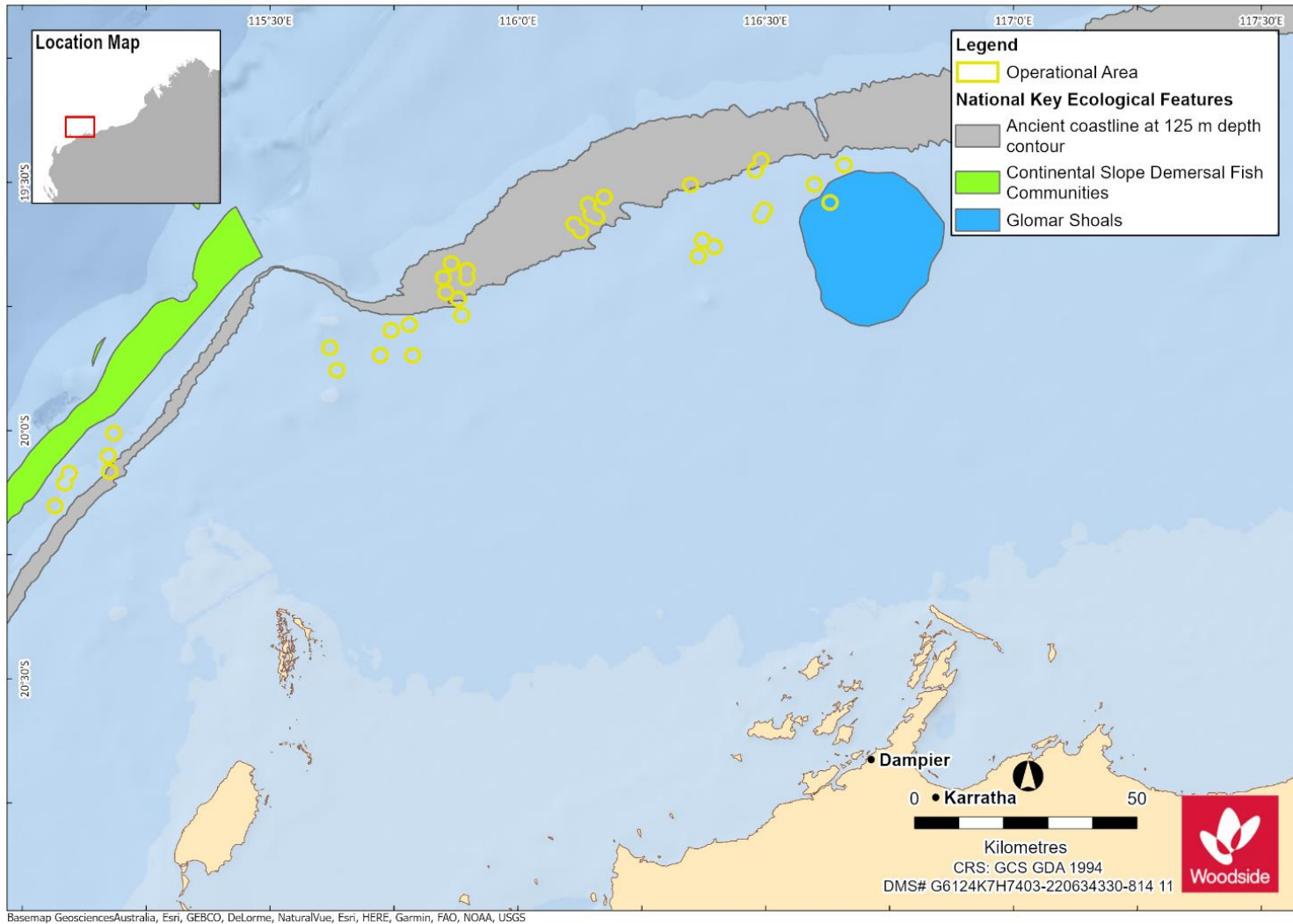


Figure 5-12: Key ecological features overlapping the Operational Areas

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5.5 Protected Places

No protected places overlap the Operational Areas. Protected places within the EMBA are identified in Table 5-17 and presented in Figure 5-12. Section 10 of the Master Existing Environment outlines the values and sensitivities of protected places and other sensitive areas in the Operational Areas and EMBA.

Table 5-17: Established protected places and other sensitive areas overlapping the EMBA

Protected place / Sensitive area	Distance and direction from Operational Areas to protected place or sensitive area (km)	IUCN category* or relevant park zone overlapping the Operational Areas or EMBA
AMPs		
NWMR		
Montebello Marine Park	6 km east (Balnaves Deep-1)	Multiple Use Zone (IUCN VI)
Gascoyne Marine Park	170 km SW (Julimar South East-1)	Multiple Use Zone (IUCN VI)
Ningaloo Marine Park	190 km SW (Julimar South East 1)	Recreational Use Zone (IUCN IV)
State Marine Parks and Nature Reserves		
Marine Parks		
Montebello Islands Marine Park	35 km south-east (SE) (Balnaves Deep-1)	VI
Montebello Islands Conservation Park	50 km SE (Balnaves Deep-1)	II
Barrow Island Marine Park	70 km SE (Julimar South East-1)	VI
Marine Management Areas		
Barrow Island Marine Management Area	75 km SE (Julimar South East-1)	IV
Muiron Islands Marine Management Area	175 km SW (Julimar South East-1)	IV
Nature Reserves		
Barrow Island Nature Reserve	70 km SE (Julimar South East-1)	IA
Boodie, Double, Middle Islands Nature Reserve	90 km SE (Julimar South East-1)	IA

*Conservation objectives for IUCN categories include:

Ia: Strict Nature Reserve

Ib: Wilderness Area

II: National Park

III: Natural Monument or Feature

IV: Habitat/Species Management Area

V: Protected Landscape

VI: Protected area with sustainable use of natural resources – allow human use but prohibits large scale development.

IUCN categories for the marine park are provided and, in brackets, the IUCN categories for specific zones within each Marine Park as assigned under the North-west Marine Parks Network Management Plan 2018.

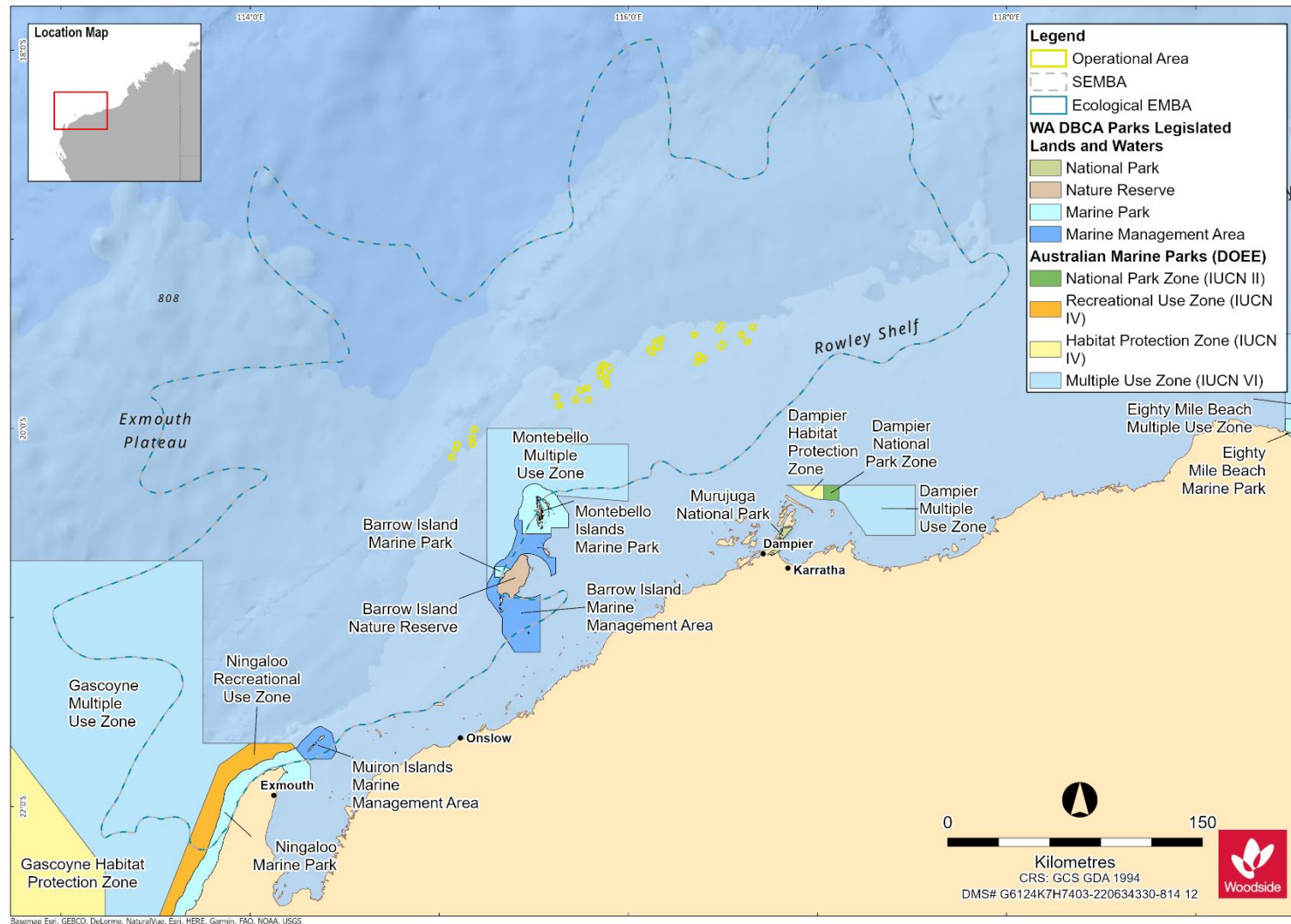


Figure 5-13: Protected areas overlapping the EMBA

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5.6 Socio-Economic Environment

5.6.1 Cultural Values and Heritage

5.6.1.1 Background

Woodside recognises the 'environment' for the purpose of the evaluation required under the Environment Regulations includes:

- the heritage value of places; and
- the social, economic, and cultural features of the broader environment.

In this section, the heritage value of places within the Operational Area and EMBA and the cultural features of the Operational Area and EMBA are described.

In line with The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (ICOMOS 2013) (Burra Charter) and associated practice notes, Woodside understands heritage value to refer to the cultural significance of a place to an individual group. A cultural feature, by contrast, is understood to be comparable to the Burra Charter term “fabric” and refer to a place’s elements, fixtures, contents and objects which have cultural values. Although these features are necessarily physical, the place they inhabit or comprise may have tangible or intangible dimensions (ICOMOS 2013).

5.6.1.2 First Nations Peoples

As a starting point for understanding social and cultural features of the environment for Indigenous (First Nations) groups, Woodside uses the existing systems, such as native title, to identify Indigenous groups that may have functions, interests or activities that may be affected. To that end, Woodside identifies native title representative bodies and nominated representative entities (defined in Section 6.5.2.1), as well as native title claims, determinations and Indigenous Land Use Agreements (ILUAs) which the EMBA overlaps. While acknowledging that cultural features and heritage values may exist outside of the native title framework, Native title claims, determinations and ILUAs are defined under the *Native Title Act 1993* (Cth). Woodside considers this to be the broadest extent over which Indigenous groups have claimed native title rights and interests.

Native title claims are applications made to the Federal Court under the Native Title Act for a determination or decision about native title in a particular area. A claim is made by a native title claim group which asserts it holds native title rights and interests in an area of land and/or water, according to its traditional laws and customs. By making a claim, the native title claim group seeks a decision that native title exists so that its native title rights and interests are recognised by the common law of Australia. This is called a native title determination. A determination is a decision by a recognised body, such as the Federal Court or High Court of Australia, that native title either does or does not exist in relation to a particular area (National Native Title Tribunal).

A requirement to establish a positive determination of native title in court is proving that there is an organised society that occupied the land and/or waters at the time of British annexation. The requirement of an ‘organised society’ is set out by Justice Toohey in the historic judgment of *Mabo v Queensland (No 2)* [1992] HCA 23; (1992) 175 CLR 1 (‘Mabo’). Justice Toohey had the following to say (at 187):

it is inconceivable that indigenous inhabitants in occupation of land did not have a system by which land was utilized in a way determined by that society. There must, of course, be a society sufficiently organized to create and sustain rights and duties...

Therefore, Woodside understands that native title rights and interests are held communally by an organised society, that native title claims are understood to represent the area over which Indigenous groups are claiming these rights and interests, and that native title determinations provide clarity on

where native title rights and interests are found to either exist or not exist. Where native title rights or interests are determined to exist they will be held by a Registered Native Title Body Corporate (section 57, Native Title Act 1993) in trust or as agent for native title holders.

ILUAs are voluntary agreements between native title parties and other people or bodies about the use and management of land and/or waters and are registered by the Native Title Registrar on the Register of ILUAs. An ILUA can be made over areas where:

- native title has been determined to exist in at least part of the area; or
- a native title claim has been made; or
- where no native title claim has been made.

While registered, ILUAs operate as a contract between the parties, including relevant native title holders (National Native Title Tribunal).

The Native Title Act provides for a Representative Aboriginal/Torres Strait Islander Body (Native Title Representative Body) to be recognised by the Commonwealth Minister for an area. Native Title Representative Bodies have specialist functions set out in the Native Title Act within the area for which they are the Native Title Representative Body. However, the functions of a Native Title Representative Body are such that they do not hold details on the cultural features or heritage values of an area and therefore do not inform Woodside's understanding of heritage values or cultural features.

For the activity in this EP there are no coastal ILUAs and one native title claims or determinations overlapping the EMBA (See Figure 5-14).

5.6.1.3 Coastally Adjacent First Nations Groups

Woodside understands that Indigenous groups are keenly aware of the extent of their rights, interests and responsibilities for Country, and these are generally discrete, defined areas, including areas of sea (Smyth 2007). To identify cultural features and heritage values which may exist outside of a native title claim, determination and ILUA areas, Woodside considers native title claims, determinations and ILUAs coastally adjacent to the EMBA to be an instructive means of identifying potentially relevant Indigenous groups to be consulted (See Section 6.4.).

That said, Woodside understands from engagement with relevant persons and/or organisations, that extending a native title group's responsibility to areas which those groups have elected to not include in their claims or ILUAs can have significant cultural consequences for Indigenous groups and individuals. This may also, over time, build expectations in the broader Indigenous community that a group is responsible for maintaining environmental values in areas for which they do not hold traditional knowledge. Woodside also acknowledges that an Indigenous group's relative proximity to any Operational Area or EMBA is not necessarily a meaningful indicator of the connection of Indigenous groups to the area, and providing advice over such areas can be culturally dangerous. As a result, caution must be used when conducting broader engagement.

A summary of native title claims, determinations and ILUAs overlapping or coastally adjacent to the EMBA is set out in Table 5-18. Claims and determinations have not been differentiated in this table, as it is acknowledged that either of these may indicate the existence of rights and interests.

For the activity in this EP there are 12 coastal ILUAs and five native title claims or determinations adjacent to and overlapping the EMBA (See Figure 5-14).

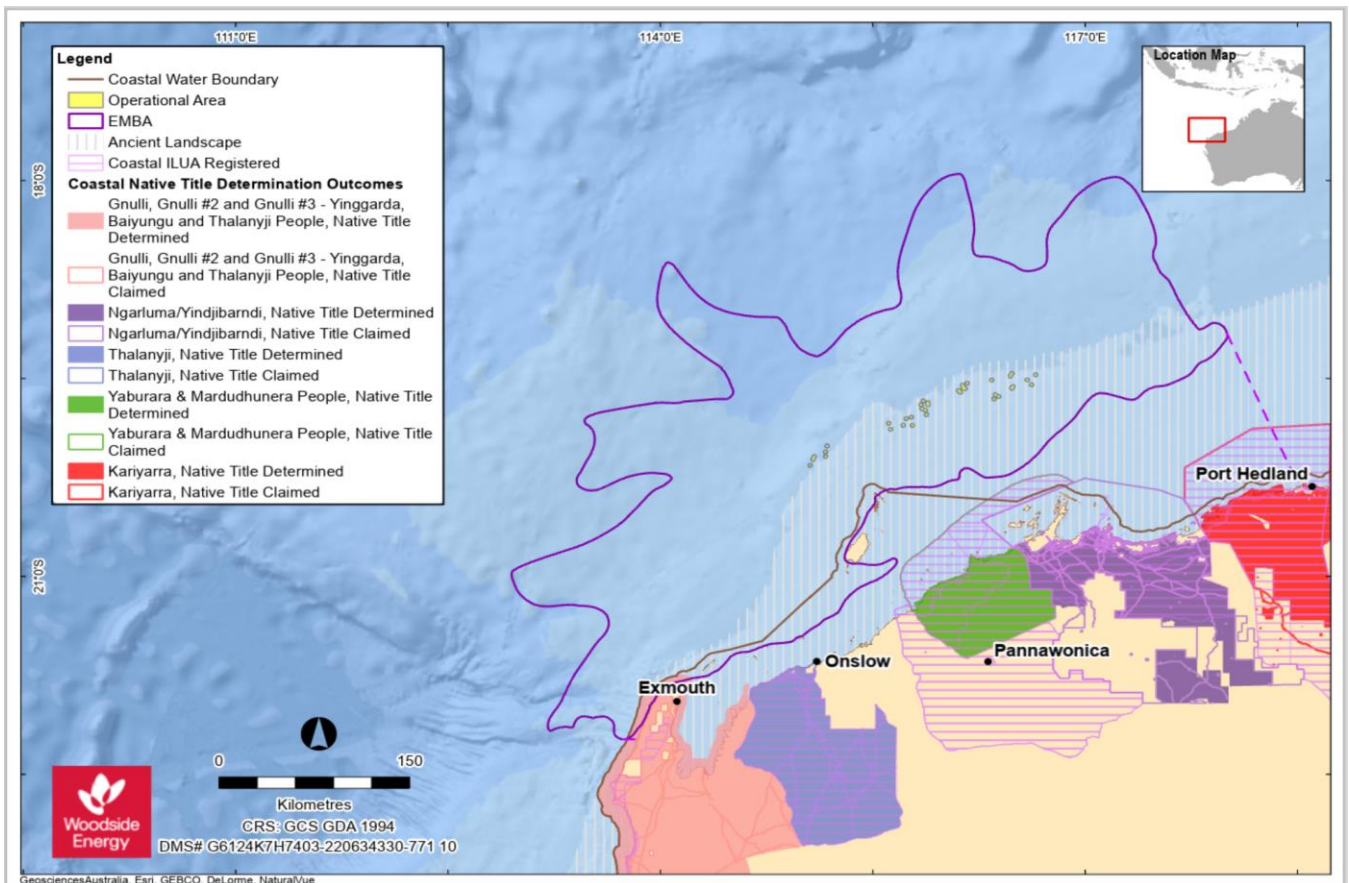


Figure 5-14: Operational Area and Socio-economic EMBA in relation to native title claims, determinations and ILUAs

Table 5-18: Summary of native title claims, determinations and ILUAs which overlap or are coastally adjacent to the EMBA

Claim / Determination / ILUA	Registered Native Title Body Corporate	Overlap with EMBA	Coastally Adjacent to the EMBA
Claim/Determination			
Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People	Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC), Yinggarda Aboriginal Corporation (YAC)	Yes	Yes
Kariyarra	Kariyarra Aboriginal Corporation (KAC)	No	Yes
Ngarluma/Yindjibarndi	Ngarluma Aboriginal Corporation (NAC), Yindjibarndi Aboriginal Corporation	No	Yes
Thalanyji	Buurabalayji Thalanyji Aboriginal Corporation (BTAC)	No	Yes
Yaburara & Mardudhunera People	Wirrawandi Aboriginal Corporation (WAC)	No	Yes
ILUA			
Alinta-Kariyarra Electricity Infrastructure ILUA	- Not specified	No	Yes

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Anketell Port, Infrastructure Corridor and Industrial Estates Agreement	NAC	No	Yes
Cape Preston Project Deed (YM Mardie ILUA)	WAC	No	Yes
Cape Preston West Export Facility	WAC	No	Yes
FMG - Kariyarra Land Access ILUA	- Not specified	No	Yes
Kariyarra and State ILUA	KAC	No	Yes
KM & YM Indigenous Land Use Agreement 2018	WAC, Robe River Kuruma Aboriginal Corporation (RRKAC)	No	Yes
Kuruma Marthudunera and Yaburara and Coastal Mardudhunera Indigenous Land Use Agreement	- Not specified	No	Yes
Macedon ILUA	BTAC	No	Yes
Ningaloo Conservation Estate ILUA	NTGAC	No	Yes
RTIO Kuruma Marthudunera People ILUA	RRKAC	No	Yes
RTIO Ngarluma Indigenous Land Use Agreement (Body Corporate Agreement)	NAC	No	Yes

5.6.1.4 Marine Parks

Woodside acknowledges that Commonwealth and State Marine Park Management Plans have sought to recognise cultural values of Indigenous groups. Australian Marine Parks (AMP) describe this framework in the following way: ‘when making decisions about what can occur in marine parks and what action we will take to protect marine parks, we take values into account’. AMP summarises these values as natural values, cultural values, heritage values and socio-economic values. Woodside is triggered to undertake an assessment of cultural values within Marine Park Management Plans where the Operational Area or EMBA overlaps a Marine Park. Woodside considers the management plans of marine parks that overlap the Operational Area and the EMBA to determine whether cultural features and heritage values have been identified and whether there are specified representative bodies referenced to contact regarding potential cultural features and heritage values.

As described in Section 5.5, the Operational Area does not overlap any AMPs or State Marine Parks. The EMBA overlaps with features of the Montebello Marine Park, Gascoyne Marine Park and Ningaloo Marine Park which are all AMPs managed under the North-West Marine Parks Network Management Plan 2018. The EMBA overlaps a further three State Marine Parks. Where these plans specify identifiable representative bodies who may hold knowledge of heritage values or cultural features—including but not limited to Registered Native Title Bodies Corporate—these bodies are consulted (see Appendix F). Consultation with these groups may identify heritage values and cultural features beyond those addressed in the marine park management plans. No identifiable representative bodies were specified for the marine parks overlapped by the EMBA (Table 5-19)

The North-West Marine Parks Network Management Plan 2018 notes for the Gascoyne, Montebello and Ningaloo AMPs that the Yamatji Marlpa Aboriginal Corporation (YMAC) is the relevant Native

Title Representative Body. Consultation with YMAC included discussion of the Traditional Custodians who may hold knowledge of heritage values or cultural features (Appendix F).

Table 5-19: Summary of Commonwealth and State Marine Park Management Plan IEMBA overlap

Marine Park Management Plan	Operational Area Overlap	EMBA Overlap	Specified Bodies
Australian Marine Park Management Plan			
Gascoyne AMP	No	Yes	No identifiable body specified.
Montebello AMP	No	Yes	No identifiable body specified.
Ningaloo AMP	No	Yes	No identifiable body specified.
State Marine Park Management Plan			
Barrow Island Marine Management Area	No	Yes	No identifiable body specified.
Muiron Islands Marine Management Area	No	Yes	No identifiable body specified.
Montebello Islands Marine Park	No	Yes	No identifiable body specified.
Barrow Island Marine Park	No	Yes	No identifiable body specified
Ningaloo Marine Park	No	Yes	NTGAC
Cape Range National Park	No	Yes	No identifiable body specified

The North-West Marine Parks Network Management Plan 2018 note shipwrecks within the AMPs and overlap with World, National and Commonwealth heritage lists. These are addressed in Sections 5.6.1.8 and 5.6.1.9 below.

The Management Plan for the Ningaloo Marine Park and Muiron Islands Marine Management Area 2005 – 2015: Management Plan Number 52 (relating to the Muiron Islands Marine Management Area and Ningaloo Marine Park) notes the aesthetic values of the seascape as a cultural value and that “Panoramic vistas of turquoise lagoon waters, reefs, beaches, breaking surf and the blue open ocean beyond the reef line are major attractions of the reserves.” In particular the plan notes that “Inappropriate structures along the coastline, on the islands and in the surrounding waters have the potential to degrade the aesthetic values of the reserves. Coastal developments and maritime infrastructure projects must therefore be planned with careful consideration of this issue.” As the activity described in this EP does not include the addition of any structures within these parks, no impacts on the aesthetic values of these parks are anticipated.

A number of management plans for the state marine parks also note Indigenous and maritime heritage within the marine parks.

5.6.1.5 Sea Country Values

Woodside recognises the potential for marine ecosystems to include cultural features as well as environmental values. This is one aspect of the broader concept of “sea country”, which can be defined as the area of sea over which an Indigenous group has interests, cultural value, connection and use. It has been noted that “the saltwater peoples of the north-west are associated with discrete clan estates or tribal areas, often referred to in contemporary Aboriginal English as ‘saltwater country’ or ‘sea country’. ‘Country’ refers to more than just a geographical area: it is shorthand for all the values, places, resources, stories and cultural obligations associated with that geographical area.” (Smyth, 2007). It necessarily follows that an impact to marine ecosystems has the potential to impact cultural features where the impact is detectable within sea country—the seascape which Traditional Custodians view, interact with or hold knowledge of. The link between environmental protection and cultural heritage protection is illustrated in the Australian Government’s Indigenous Protected Areas

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Program. The Indigenous Protected Areas Program provides for “areas of land and sea managed by Indigenous groups as protected areas for biodiversity conservation...IPAs deliver environmental benefits...Managing IPAs also helps Indigenous communities protect the cultural values of their country for future generations...” (DCCEEW, 2023).

McNiven (2004) suggests that “For those mainland groups whose exploitation of the sea was limited to littoral resources, it is likely that seascapes extended no more than c. 20–30 km out to sea, out to the horizon and the limit of human visibility. ... However, in some coastal places, clouds that can be seen well over 100km out to sea are imbued with spiritual significance. For those groups with elaborate canoe technology, seascapes extend well over the horizon.” While there is some evidence of traditional watercraft in Australia’s North West, the recorded evidence is limited to travel across inland rivers (e.g. Barber and Jackson 2011) or travel between coastal islands (Paterson et al 2019). The process for identifying Indigenous groups who may have interests and connection in sea country are set out in Section 5.6.1.2. The scope of advice Traditional Custodians were encouraged to provide through project consultation was not limited by reference to any particular boundaries or limits of sea country.

Cultural features of coastal areas may include marine species that may travel many thousands of kilometres through areas with similar cultural values to multiple Indigenous language groups. Some species may travel as far as 5,000 km from Antarctica to the Kimberley region of Western Australia (Double et al., 2010, 2012), passing Indigenous language groups along the entire west coast of Australia. For a further description of turtles and whale distribution and whale migration patterns (Section 5.3).

As set out above, an impact to marine ecosystems has the potential to impact cultural values where the impact is detectable within Sea Country. Woodside considers that impact to cultural values of marine species will be adequately managed in areas of traditional Sea Country, and therefore management of the environmental values will preserve the cultural values of environmental receptors, as assessed in Section 6.

Woodside is triggered to consult on cultural values of Sea Country where Traditional Custodians or representative institutions are identified, or self-identify, as relevant persons.

Indigenous Archaeological Heritage Assessment

Woodside understands that communal cultural connection may exist between Traditional Custodians and land and waters. It is understood from the onshore archaeological record that Aboriginal people have occupied the Australian continent for at least 65,000 years (Clarkson et al 2017) and in many places maintain a strong continuing connection that is said to extend back in Indigenous cosmology to the beginning of time.

It is understood that the sea level has risen significantly during the 65,000 years of Indigenous occupation, and areas that were once inhabited are now submerged on the continental shelf (Veth et al 2019; UWA 2021). Woodside also understands that, at its lowest level during Indigenous occupation, sea level was between 125 m (O’Leary et al. 2020, Veth et al. 2019, Williams et al., 2018) and 130 m below current levels (Benjamin et al. 2020, Benjamin et al. 2023, UWA 2021). Archaeological material preserved on the Ancient Landscape has the potential to provide further information about the earliest periods of human occupation (Veth et al. 2019; UWA 2021).

Recent archaeological discoveries demonstrate that the now submerged landscape was occupied and inhabited, and can retain archaeological material from this time (Benjamin et al, 2020, Benjamin et al. 2023; see Ward et al. 2021 for an opposing view).

In recognition of this, Woodside considers the Ancient Landscape between the mainland and the Ancient Coastline KEF (Section 5.4) as an area where potential Indigenous archaeological material may exist on the seabed, as this covers the full extent of this possible Indigenous occupation. Known Indigenous heritage places including archaeological sites may be protected subject to declarations under the Aboriginal and Torres Strait Islander Heritage Protection Act 1984, Underwater Cultural Heritage Act 2018 or EPBC Act 1999. However, these Acts only extend protection to Indigenous

heritage places specified by declaration or otherwise included on a statutory list. Woodside understands that there is no Indigenous archaeology known to exist anywhere within Commonwealth waters and no areas subject to declarations or prescriptions under these Acts are located within the EMBA.

For this EP, a search of DPLH's Aboriginal Cultural Heritage Inquiry System was undertaken, which showed no Registered Aboriginal Sites or Other Heritage Places in the Operational Area but did identify 8 sites in the EMBA (Appendix D). The Operational Area intersects part of the Ancient Landscape but also extends beyond the furthest extent of the Ancient Landscape.

No archaeological sites within the Operational Area or EMBA were identified by Traditional Custodians during the course of preparing the EP.

Archaeological material on the Ancient Landscape is a relevant matter for the proposed activity as there is overlap between the Operational Area and the Ancient Landscape, and potential for seabed disturbance from planned activities and therefore potential for impacts to archaeological material. Woodside undertakes desktop assessments of archaeological potential, based on geophysical and bathymetric data, for any seabed disturbance at depths of less than 130 m. In Australia until recently, the consideration of submerged archaeological sites has generally focused on the sub-discipline of maritime archaeology with connection to Australian Indigenous archaeology through studies of Indigenous fish-traps, whaling stations and shipwreck survivor camps. However, with the exception of Indigenous fish traps in intertidal zones, the consideration of Indigenous heritage sites submerged by post-glacial sea-level rise has only recently been considered (Mott, 2019).

A desktop assessment will be undertaken by a suitably qualified marine archaeologist using available geotechnical and geophysical data, in accordance with the draft guidelines for working in the near and offshore environment to protect Underwater Cultural Heritage (DCCEEW, 2023). The outcomes of this review will be addressed as described in Section 7.7.2.

Should feedback be received (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (Section 8.7.1).

Where Indigenous archaeological material is identified within the EMBA, Woodside will discuss the management of this material with appropriate Traditional Custodian group(s), starting with any adjacent Native Title Body Corporate.

5.6.1.5.1 Feedback Received via Consultation to Inform Existing Environment Description

Indigenous cultural values are communally held. This is reflected in Vision 3 of Dhawura Ngilan that "Aboriginal and Torres Strait Islander heritage is managed... according to community ownership" (Heritage Chairs of Australia and New Zealand 2021). Dhawura Ngilan also specifically notes that "Aboriginal and Torres Strait Islander... intangible knowledge systems, which are held in songlines and language, are endangered. This knowledge is held by Elders and the community..." Through consultation with relevant persons, Registered Native Title Bodies Corporate have identified or raised topics relating to environmental values of cultural interest. These include a broad interest in the marine fauna, including whales and turtles (Appendix F).

During consultation, BTAC advised it has a cultural obligation to care for the environmental values of sea country (Appendix F). In the course of consultation specific to another Woodside EP, BTAC raised the importance of archaeological sites on nearshore islands. Given the EMBA for this activity extends to nearshore areas coastally adjacent to BTAC native title lands, these values may be relevant in the event of an unplanned hydrocarbon spill. BTAC has not provided further detail regarding heritage value of places or cultural features of the Operational Area or the EMBA.

Some persons or organisations who identified as a relevant person in relation to First Nations cultural heritage in other Woodside EPs, have indicated knowledge of cultural features or heritage values potentially affected by the activities described in this EP.

For completeness in describing the Existing Environment this feedback on potential cultural features and heritage values is identified below:

- whales (including migration patterns)
- whale sharks
- turtles
- dugongs
- plankton
- seagrass
- kestrel
- octopus
- break
- sting ray
- energy lines (unspecified)
- songlines and dreaming (unspecified)
- where saltwater and freshwater meet.
- mythic snakes.

5.6.1.6 Intangible Cultural Features

Oral Songlines are often described by Aboriginal people as the law of the land and make up part of the Dreaming (Neale and Kelly, 2020). Songlines are viewed in Western academia as a framework for relating people to land and consist of a series of invisible, interconnected routes along the landscape that mark significant sites for Aboriginal people (Higgins 2021). Songlines demonstrate Aboriginal peoples' strong connections to land by revealing sacred knowledge that is place-specific (Roberts 2023). The land's physical features are instrumental in maintaining songlines because this is how ancestral spirits journeyed through, and interacted with, the physical landscape leaving sacred knowledge behind. The interconnection between the physical and spiritual is where songlines become intrinsically tied to significant places across Country. As a result, geographical landforms are recorded within songlines and become sacred places. Such landforms can include inter alia: rocks, mountains, rivers, caves and hills (Higgins 2021). Songlines can become lost, fragmented or broken when there is a loss of Country or forced removal from Country (Neale and Kelly 2020). Physical sites that have been identified as comprising a component of a songline are important to protect in order to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge. While no specific details of songlines have been provided by relevant persons during consultation for this Activity, it can be confirmed that no landforms typical of songlines have been identified or are anticipated to be impacted by the Activity.

In Australia, songlines can stretch thousands of kilometres, making up a complex and organic network of stories containing cultural knowledge of First Nations communities across the land (Neale and Kelly 2020). Songlines can also extend out to Sea Country and contain cultural knowledge that is tied to geographic features, atmospheric phenomena and marine plants and animals. Often songlines containing references to a seascape or Sea Country make mention of mythical events occurring around marine life, fishing areas, submerged rocks or coral. Songlines that embody seascapes can reflect how a group may relate to, or value, Sea Country—for example connections to nearby islands that they once inhabited in their songlines (Smyth and Isherwood 2016). Songlines can also be used as proof of long-standing connection to land and support a legal entitlement to land rights (Higgins 2021). Examples where songlines contain strong references to Sea Country are more common in Pacific Islander and Torres Strait Islander communities, who often refer to seascapes

and skylines in their songlines in order to communicate sacred knowledge that assists in safe navigation of the ocean (Neale and Kelly 2020).

5.6.1.7 Historic Sites of Significance

There are no known sites of European cultural heritage significance within the Operational Area.

5.6.1.8 Underwater Heritage

A search of the Australian National Shipwreck Database, which records all known Maritime Cultural Heritage (shipwrecks, aircraft, relics and other underwater cultural heritage) in Australian waters indicated there are no sites within any Operational Areas; however, a number of shipwrecks exist within the EMBA (Table 5-20).

Table 5-20: Shipwrecks within 50 km of the Operational Areas

Shipwreck	Distance and Direction from Closest Operational Area to Shipwreck (km)
Sailing Vessel (Tanami)	35 km SW (Julimar South East-1)
Sailing Vessel (Trial)	36 km SW (Julimar South East-1)
McDermott Derrick Barge No 20	36 km SSE (Dixon-1)

5.6.1.9 World, National and Commonwealth Heritage Listed Places

No World, National or Commonwealth heritage listed places overlap any of the Operational Areas. World, National and Commonwealth heritage places within the EMBA are identified in Table 5-21. Section 11.2 of Master Existing Environment outlines the values and sensitivities of these places.

Table 5-21: World, National and Commonwealth Heritage Listed places within the EMBA

Listed Place	Distance and Direction from Closest Operational Areas to Listed Place (km)
World Heritage Places	
The Ningaloo Coast	335 km SW (Julimar South East-1)
National Heritage Places	
The Ningaloo Coast	335 km SW (Julimar South East-1)

5.6.2 Commercial Fisheries

Commonwealth and State fishery management areas are located within the Operational Areas. Fishcube and ABARES data were used to analyse the potential for interaction of fisheries with the Operational Areas, which was used to determine consultation with State and Commonwealth fisheries who may be impacted by proposed petroleum activities (Department of Primary Industries and Regional Development [DPIRD], 2021). Table 5-22 provides an assessment of the potential interaction and Section 11.5 of the Master Existing Environment provides further detail on the fisheries that have been identified through desk-based assessment and consultation (Section 6). In summary, there is a potential for interactions with vessels from four State fisheries and the proposed Petroleum Activities Program.

Table 5-22: Commonwealth and State commercial fisheries overlapping the Operational Areas

Fishery Name	Potential for Interaction Within Operational Areas	
Commonwealth Managed Fisheries		
Skipjack Tuna Fishery	N	The Skipjack Tuna Fishery has not been actively fished since the 2008–2009 fishing season (Patterson <i>et al.</i> , 2020). While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort expected.
Southern Bluefin Tuna Fishery	N	Fishing effort for the Southern Bluefin Tuna (<i>Thunnus maccoyii</i>) Fishery occurs in the Great Australian Bight and north-east of Eden in New South Wales. While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort expected.
Western Tuna and Billfish Fishery	N	Fishing effort occurs in offshore waters between Carnarvon and south-west Australia, more than 800 km south of the Operational Areas. While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort expected.
State Managed Fisheries		
Mackerel Managed Fishery (Area 2 Pilbara)	Y	All 36 Operational Areas overlap this fishery. Fish Cube data indicates that, over the last five years, four or fewer vessels were active in the 60 nm grid overlapping all 36 Operational Areas. However, when considering the finer scale, only Lady Nora-2 overlaps with a 10 nm grid square reporting fishing effort in the last five years (DPIRD, 2022). The total weight of catch in 2020 for these grids was approximately 3.5 tonnes (DPIRD, 2022). The majority of fishing effort for target species' narrow-barred Spanish mackerel (<i>Scomberomorus commerson</i>) and broad-barred king mackerel (<i>Scomberomorus semifasciatus</i>) is focused near coastal reefs using near-surface trolling or handline. Based on fishing effort, there is potential for interaction within the Lady Nora-1 Operational Area during the Petroleum Activities Program.
Pilbara Trap Limited Entry Fishery	Y	All 36 Operational Areas overlap this fishery. Fish Cube data indicates three or fewer vessels were active over the last five years in the 60 nm grids that include all 36 Operational Areas (DPIRD, 2022). The total weight of catch between 2018 and 2020 was approximately 305 tonnes in the Operational Areas. The fishery operates primarily from Onslow. Area 3 of the fishery has been closed since 1998. Management arrangements have limited the number of traps used, and the greatest effort is in waters less than 50 m depth. There is potential for interaction within any of the 36 Operational Areas during the Petroleum Activities Program.
Pilbara Line Fishery	Y	All 36 Operational Areas overlap this fishery. Fish Cube data indicates up to five vessels were active in 2017, and less than three vessels in 2018, 2019 and 2020, in the 60 nm grids that include all 36 Operational Areas (DPIRD, 2022). Total catch over the last five years was approximately 310 tonnes for the region (Gaughan and Santoro, 2021). This fishery targets tropical demersal species, including ruby snapper (<i>Etelis carbunculus</i>), red emperor (<i>Lutjanus sebae</i>) and Rankin cod (<i>Epinephelus multinotatus</i>) that occur predominantly in inshore shelf waters (20 to 250 m depth). There is potential for interaction within any of the 36 Operational Areas during the Petroleum Activities Program.

Fishery Name	Potential for Interaction Within Operational Areas	
Pilbara Fish Trawl Fishery	Y	<p>All 36 Operational Areas overlap this fishery. Fish Cube data indicates less than three vessels in 2018, four in 2019 and five 2020, in the 10 nm grids that include all 36 Operational Areas (DPIRD, 2022). Across the overlapping 10 nm grid squares, the total weight of catch between 2018 and 2020 was approximately 610 tonnes (DPIRD, 2022). The fishery typically operated between 50 m and 200 m water depth.</p> <p>However, only eight Operational Areas (Angel-1, Angel-2, Angel-3, Cossack-1, Cossack-6, Wanaea-4, Walcott-1, Madeleine-1) overlap an area which is currently open to trawling (Schedule 3, Zone 2, Area 1). All other Operational Areas overlap areas of the fishery that are currently closed to trawling.</p> <p>Therefore, considering the fishing effort, water depths of the Operational Areas and the areas open to trawling, there is potential for interaction within eight of the 36 Operational Areas during the Petroleum Activities Program.</p>
Abalone Fishery	N	<p>The fishery targets greenlip abalone (<i>Haliotis laevis</i>) and brownlip abalone (<i>H. conicopora</i>) and is a dive fishery that operates in the shallow coastal waters off the south-west and south coasts of WA.</p> <p>Although all 36 Operational Areas overlap the fishery, Fish Cube data indicates the fishery has not been active in any of the 36 Operational Areas within the last five years (DPIRD, 2022). Therefore, interaction during the Petroleum Activities Program is not expected.</p>
Marine Aquarium Fishery	N	<p>Fish Cube data indicates the fishery has not been active in any of the 36 Operational Areas within the last five years (DPIRD, 2022). As a dive-based fishery (targeting fish, coral, algae, live rock), water depths in the Operational Areas are not conducive to current methods for this fishery (typically approximately 30 m).</p> <p>While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort and that dive methods are not conducive to water depths of the Operational Areas.</p>
Onslow Prawn Fishery	N	<p>While all 36 Operational Areas overlap the fishery, Fish Cube data indicates the fishery has not been active in any of the Operational Areas within the last five years (DPIRD, 2022).</p> <p>Therefore, no interaction is expected during the Petroleum Activities Program.</p>
Pearl Oyster Managed Fishery	N	<p>Fish Cube data indicates the fishery targeting <i>Pinctada maxima</i> has not been active in any of the Operational Areas within the last five years (DPIRD, 2022). As a dive-based fishery, water depths in the Operational Areas are typically not conducive to current methods for this fishery (typically approximately 30 m).</p> <p>While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort and that dive methods are not conducive to water depths of the Operational Areas.</p>
Pilbara Crab Fishery	N	<p>Fish Cube data indicates no other activity in this fishery has occurred in the Operational Areas within the last five years (DPIRD, 2022). The target species, blue swimmer crab (<i>Portunus armatus</i>), is fished using hourglass traps and the majority of fishing effort is focused in inshore waters from Onslow to Port Hedland.</p> <p>While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort over the last five years.</p>
Specimen Shellfish Fishery	N	<p>Fish Cube data indicates no activity in this fishery has occurred in any of the 36 Operational Areas within the last five years (DPIRD, 2022). As a dive-based fishery, water depths in the Operational Areas are not conducive to current methods for this fishery (typically approximately 30 m).</p> <p>While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort and that dive methods are not conducive to water depths of the Operational Areas.</p>
South-West Coast Salmon Managed Fishery	N	<p>The known distribution of the Western Australian salmon (<i>Arripis truttaceus</i>) does not overlap the Operational Areas or surrounds. The main fishing method is shore-based or coastal (using beach seine nets) and Western Australian Fishing Industry Council (WAFIC) has advised that no fishing takes place north of the Perth metropolitan area, despite the managed fishery boundary extending to Cape Beaufort (WA/Northern Territory (NT) border). This is confirmed by Fish Cube data that indicates the fishery has not been active in any of the 36 Operational Areas within the last five years (DPIRD, 2022).</p> <p>Therefore, no interaction with this fishery is expected during the Petroleum Activities Program.</p>

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Fishery Name	Potential for Interaction Within Operational Areas	
Western Australian North Coast Shark Fishery	N	<p>While all 36 Operational Areas overlap the fishery, no fishing has been allowed under the fishery since 2008/2009 (DPIRD, 2022).</p> <p>As a result, no interaction with this fishery is expected during the Petroleum Activities Program.</p>
Western Australian Sea Cucumber Fishery (formerly known as Beche-de-mer Fishery)	N	<p>Fishing occurs in the northern half of WA from Exmouth Gulf to the NT border and is managed under Ministerial Exemptions. The two main species targeted are sandfish (<i>Holothuria scabra</i>) and deepwater redfish (<i>Actinopyga echinites</i>).</p> <p>Although permitted to fish within the Operational Areas, the fishery is restricted to shallow coastal waters suitable for diving and wading. As a dive-based fishery, waters are typically not conducive for this fishery. This is confirmed by Fish Cube data that indicates the fishery has not been active in any of the 36 Operational Areas within the last five years (DPIRD, 2022).</p> <p>While all 36 Operational Areas overlap the fishery, no interaction is expected during the Petroleum Activities Program, given the lack of fishing effort and that dive methods are not conducive to water depths of the Operational Areas.</p>
West Coast Deep Sea Crustacean Managed Fishery	N	<p>Fishing targets crystal (snow) (<i>Chaceon chaceon albus</i>), champagne (spiny) (<i>Hypothalassia acerba</i>) and giant (king) (<i>Pseudocarcinus gigas</i>) crabs using baited crab pots operated in a long-line formation. The fishery typically operates in water depths greater than 150 m. Only six of the 36 Operational Areas occur in water depths greater than 150 m (Brulimar-1, Brunello-1ST1, Grange-1-WA, Julimar South East-1, Julimar East-1). However, no fishing effort has been recorded over the last five years in any of the 36 Operational Areas (DPIRD, 2022)</p> <p>As a result, no interaction with this fishery is expected during the Petroleum Activities Program.</p>

Fisheries not overlapping with any Operational Areas, but occurring within the EMBA and socio-cultural EMBA, are described in Section 11.5.1 of the Master Existing Environment and listed in Appendix F.

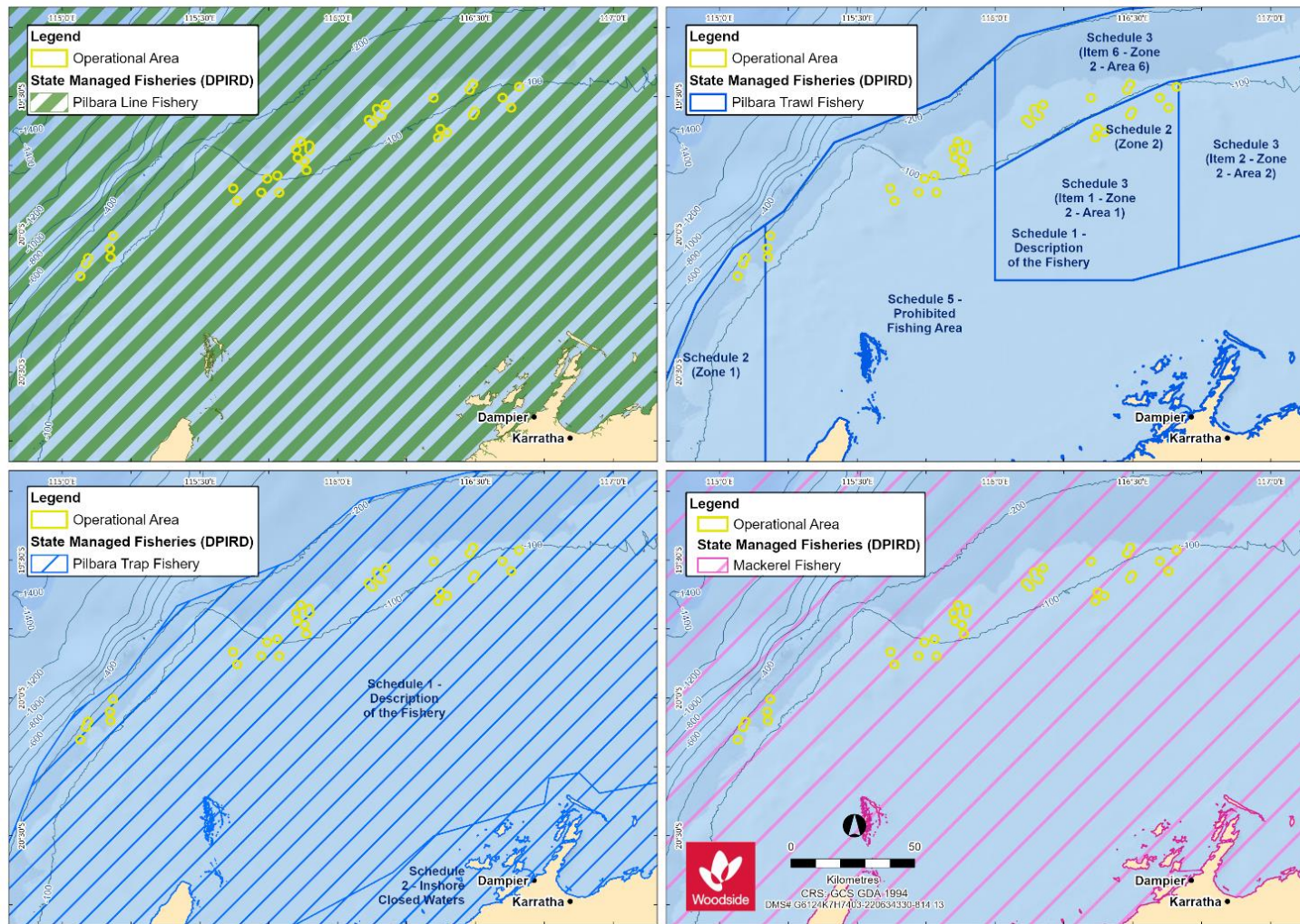


Figure 5-15: State fisheries with potential for interaction within an Operational Area

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5.6.3 Traditional Fisheries

Woodside does not expect there to be any traditional fisheries that operate within the Operational Areas or EMBA. Traditional fisheries are typically restricted to coastal waters or areas with suitable fishing structures such as reefs.

5.6.4 Tourism and Recreation

The Montebello Islands are the closest location for frequent tourism activities, located approximately 47 km from the nearest Operational Area (Balnaves Deep-1). Charter operators take visitors to these remote islands. Occasional recreational fishing occurs at Glomar Shoals (overlaps Angel-3) and Rankin Bank (5 km north of Lady Nora-1). Recreational fishing may occur in the Operational Areas for these wells, though given the water depths and distance from shore, frequency and intensity is expected to be low compared to other locations in the region.

5.6.5 Commercial Shipping

The Australian Maritime Safety Authority (AMSA) has introduced a network of marine fairways across the NWMR off WA to reduce the risk of vessel collisions with offshore infrastructure. One shipping fairway intersects with the Goodwyn-4 and Goodwyn-6 Operational Areas (Figure 5-12). Other areas of higher density shipping overlap some of the Operational Areas and appear to be related to the Woodside-operated Angel Platform, North Rankin Complex and Goodwyn Platform (Figure 5-17).

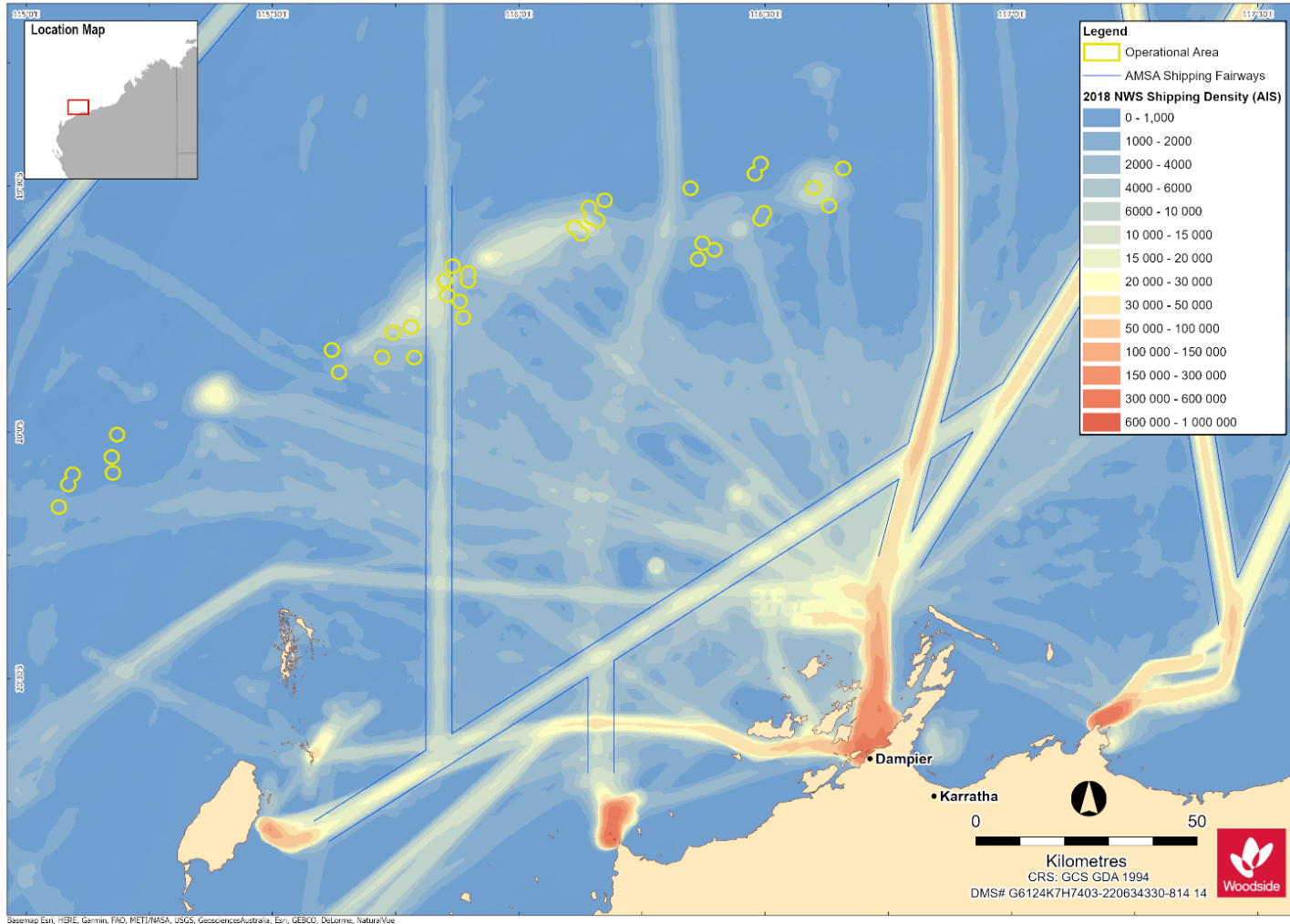


Figure 5-16: Vessel density map for the Operational Areas and the EMBA, derived from Australian Maritime Safety Authority satellite tracking system data (vessels include cargo, liquefied natural gas tankers, passenger vessels, support vessels and others/unnamed vessels)

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5.6.6 Oil and Gas

Table 5-23 details other oil and gas facilities located within 50 km of any Operational Area. Section 11.9 of the Master Existing Environment describes current oil and gas development within the EMBA, also shown in Figure 5-17.

Table 5-23: Other oil and gas facilities located within 50 km of the Operational Areas

Facility Name and Operator	Distance and Direction from Operational Areas to Facility (km)
North Rankin Complex (Woodside)	1 km north east of North Rankin-1
Okha FPSO (Woodside)	6.5 km southwest of Cossack-1
Angel Platform (Woodside)	1 km northeast of Angel-1
Goodwyn A Platform (Woodside)	4 km east of Goodwyn-5
Wheatstone (Chevron)	22 km east of Brulimar-1
Pluto (Woodside)	19 km east of Brulimar-1
John Brooks (Santos)	33 km south of Julimar South East-1
Reindeer (Santos)	42 km south of Madeleine-1

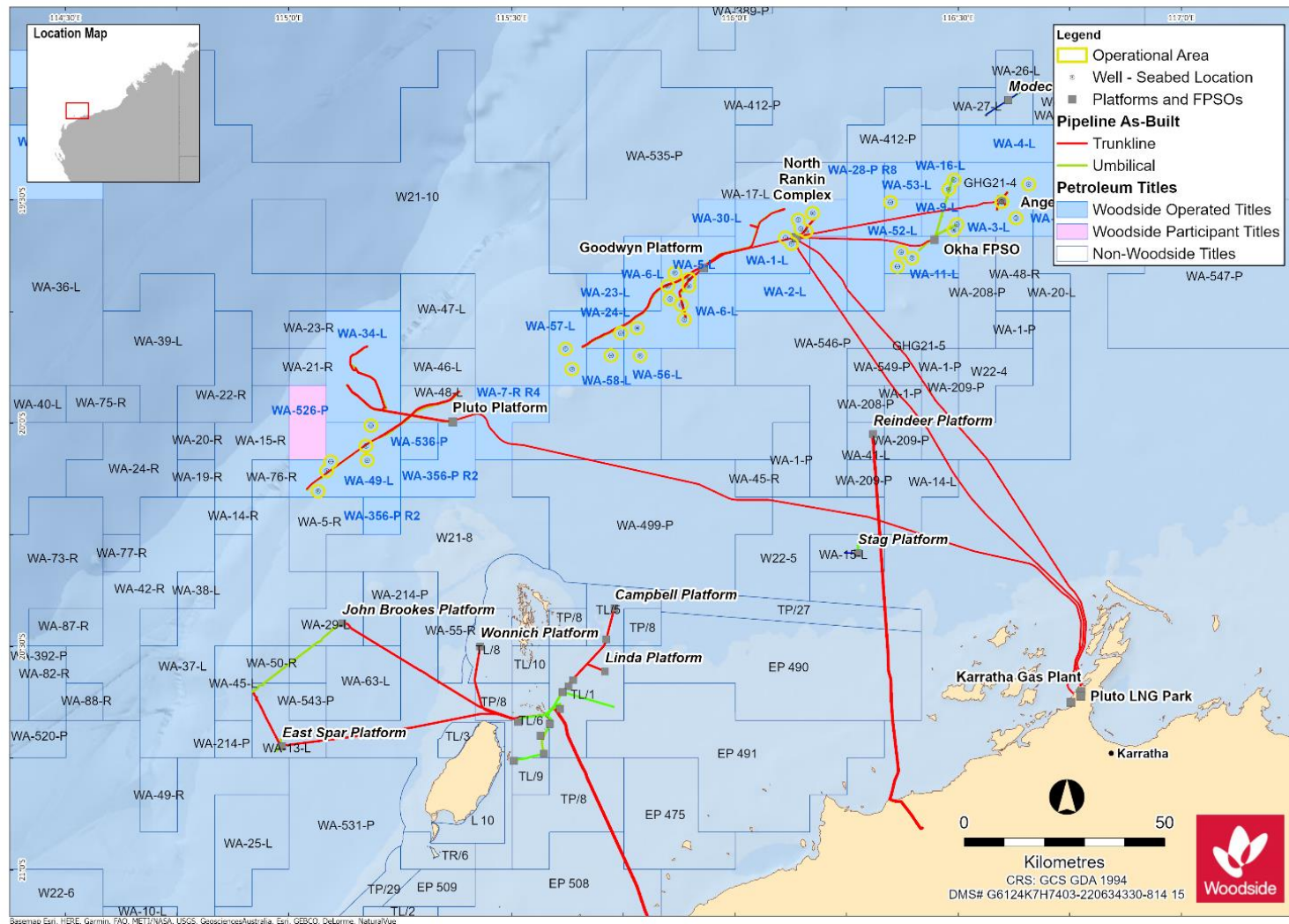


Figure 5-17: Oil and gas infrastructure within the Operational Areas and the EMBA

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5.6.7 Defence

The Australian Border Force vessels perform civil and maritime surveillance within the Northwest and Northern coastal zones, with the primary purpose of monitoring the passage of illegal entry vessel and illegal fishing activity within these areas.

Defence training areas intersect five Operational Areas (Julimar South East-1, Julimar East-1, Grange-1, Brulimar-1 and Brunello-1) (Figure 5-18). The closest defence practice area within the EMBA is approximately 160 km to the south-west of Julimar South East-1.

5.6.8 Telecommunication Infrastructure

The Operational Area overlaps a telecommunication cable that services Woodside operated North West Shelf facilities. The cable is approximately 260 m from the North Rankin-3 wellhead at its closest point.

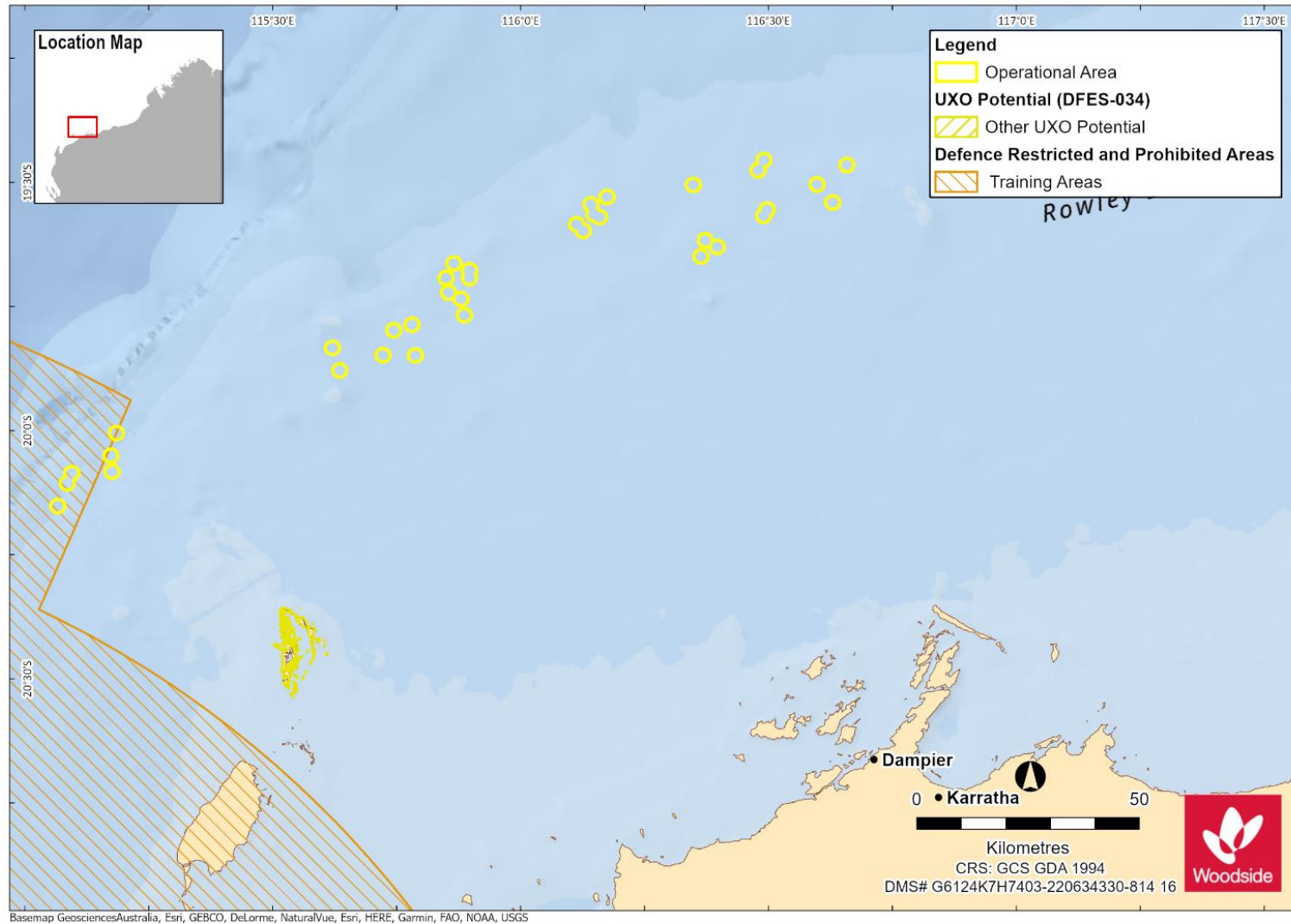


Figure 5-18: Defence areas within the Operational Areas and the EMBA

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6 CONSULTATION

6.1 Summary

Woodside consults relevant persons in the course of preparing an EP in accordance with regulation 11A of the Environment Regulations. Woodside acknowledges that consultation is designed to ensure that relevant persons are identified and given sufficient information and a reasonable period to allow them to make an informed assessment of the possible consequences of the proposed activity on them and, to ensure that titleholders can consider and adopt appropriate measures in response to the matters raised by relevant persons. Consistent with regulation 3 of the Environment Regulations, consultation also supports Woodside's objective to ensure that the environmental impacts and risks of the activity are reduced to ALARP and an acceptable level.

Woodside acknowledges that a titleholder's approach to consultation must be informed by both the Environment Regulations and the findings of the Full Federal Court in the *Santos NA Barossa Pty Ltd v Tipakalippa* [2022] FCAFC 193 (Tipakalippa Appeal) (see Section 6.2 and 6.5.1) delivered on 2 December 2022.

For this PAP, Woodside has considered both the Operational Area and the broader EMBA in undertaking consultation (see further discussion in Section 6.2). The broadest extent of the EMBA has been determined by reference to the highly unlikely event of a hydrocarbon release resulting from the PAP (see Section 5).

Woodside's consultation methodology is divided into two parts:

- The first section (Section 6.2 to 6.5) provides an overview of Woodside's consultation methodology for its EPs, including how we apply regulation 11A(1) of the Environment Regulations to identify relevant persons.
- The second section (Section 6.6 to 6.7) details Woodside's approach to accepting feedback and assessment of the merit of objections and claims, and engaging in ongoing consultation for this EP.

Woodside's consultation record is at Appendix F and includes:

- Assessment and identification of relevant persons.
- Consultation information provided to relevant persons, feedback received and Woodside's assessment of the merits of objections or claims.
- Engagement with persons or organisations that Woodside chose to contact who are not relevant persons for the purposes of regulation 11A(1) of the Environment Regulations (see Section 6.3.4).
- Opportunities provided to persons or organisations to be aware of Woodside's proposed EP and participate in consultation, including individual Traditional Custodians.

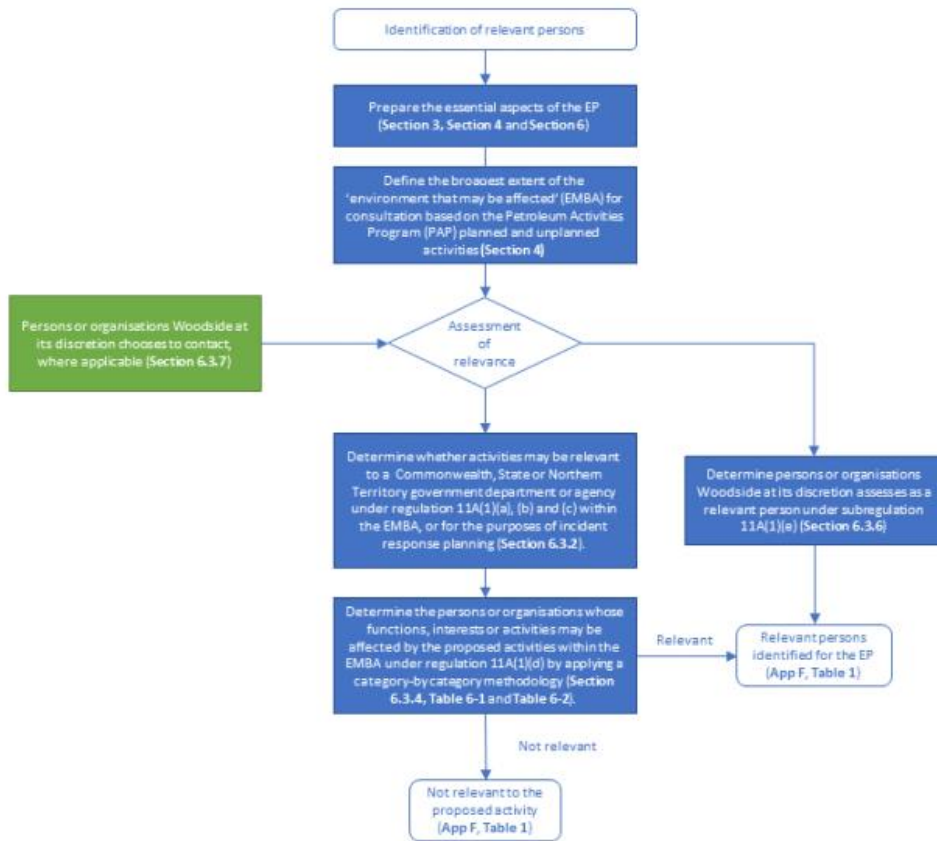


Figure 6-1: Overview of Woodside’s methodology to identify relevant persons

6.2 Consultation – General Context

Woodside has a portfolio of quality oil and gas assets and more than 30 years of operating experience. We have a strong history of working with local communities, the relevant regulators and a broad range of persons and organisations to understand the potential risks and impacts from our proposed activities and to develop appropriate measures to manage them.

The length of time that we have operated in Commonwealth and State waters, and the history of continued engagement with a wide range of persons and organisations enables Woodside to develop an extensive consultation list to inform its consultation process. This consultation list is not used as a definitive list of persons to consult, but rather, assists Woodside as an input to its understanding of relevant persons with whom to consult on a proposed petroleum activity. The information in the consultation list has been captured from years of experience, it contains insights relating to the type of information particular persons or organisations want to receive during consultation, the appropriate method of consultation for relevant persons and includes appropriate contact details, which are reviewed and updated periodically.

Woodside acknowledges NOPSEMA’s Guideline on *Consultation in the course of preparing an environment plan* (12 May 2023) as well as recent judicial guidance in the Tipakalippa Appeal on the intent of consultation as follows:

At paragraph 54 of the appeal decision: ... provide a basis for NOPSEMA’s considerations of the measures, if any, that a titleholder proposes to take or has taken to lessen or avoid the deleterious effect of its proposed activity on the environment, as expansively defined.

At paragraph 89 of the appeal decision: ... its purpose is to ensure that the titleholder has ascertained, understood and addressed all the environmental impacts and risks that might arise from its proposed

activity. Consultation facilitates this outcome because it gives the titleholder an opportunity to receive information that it might not otherwise have received from others affected by its proposed activity. Consultation enables the titleholder to better understand how others with an objective stake in the environment in which it proposes to pursue the activity perceive those environmental impacts and risks. As the Regulations expressly contemplate, it enables the titleholder to refine or change the measures it proposes to address those impacts and risks by taking into account the information acquired through the consultations. Objectively, the scheme intends that this is likely to improve the minimisation of environmental impacts and risks from the activity.

The Tipakalippa Appeal has also been further considered in the context of specific methods for consultation with First Nations relevant persons (Section 6.5.1).

In order to undertake consultation, Woodside has developed a methodology for identifying relevant persons, in accordance with regulation 11A(1) of the Environment Regulations (Section 6.3). This methodology reflects NOPSEMA's recent guideline and demonstrates that, in order to meet the requirements of regulation 10A (criteria for EP acceptance) when preparing the EP, Woodside understands:

- our planned activities in the Operational Area, being the area in which our planned activities are proposed to occur (see Section 4.4); and
- the geographical extent to which the environment may be affected (EMBA) by risks and impacts from our activities (unplanned) (identified in Section 4.1 and assessed in Section 7.8).

Woodside has undertaken consultation in the course of preparing this EP in compliance with regulation 11A of the Environment Regulations, which requires a titleholder to:

- consult with each of the following (a *relevant person*) in the course of preparing an environment plan:
 - each Department or agency of the Commonwealth to which the activities to be carried out under the environment plan, or the revision of the environment plan, may be relevant;
 - each Department or agency of a State or the Northern Territory to which the activities to be carried out under the EP, or the revision of the EP, may be relevant;
 - the Department of the responsible State Minister, or the responsible Northern Territory Minister;
 - a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the EP, or the revision of the EP; and
 - any other person or organisation that the titleholder considers relevant (regulation 11A(1)).
- give each relevant person sufficient information to allow the relevant person to make an informed assessment of the possible consequences of the activity on their functions, interests or activities (regulation 11A(1)(2));
- allow a relevant person a reasonable period for the consultation (regulation 11A(1)(3)); and
- tell each relevant person that the titleholder consults with, that the relevant person may request that particular information it provides in the consultation not be published and any information subject to such a request is not to be published (regulation 11A(1)(4)).

Further, Woodside seeks to carry out consultation in a manner that:

- is consistent with the principles of ecologically sustainable development (ESD) set out in section 3A of the EPBC Act – see Section 2;
- is intended to reduce the environmental impacts and risks from the activity to ALARP and an acceptable level;

- seeks to ensure that the environmental impacts and risks of the activity will be of an acceptable level;
- is intended to minimise harm to the relevant person and the environment from the proposed petroleum activities and to enable Woodside to consider measures that may be taken to mitigate the potential adverse environmental impacts that the petroleum activity may otherwise cause;
- is collaborative; Woodside respects that for a relevant person, consultation is voluntary. Where the relevant person seeks to engage, Woodside collaborates with the relevant person with the aim of seeking genuine and meaningful two-way dialogue; and
- provides opportunities for relevant persons to provide feedback throughout the life of the EP through its ongoing consultation process (refer to Section 6.7 and Section 8.6.3).

An overview of Woodside’s consultation approach is outlined at Figure 6-2.

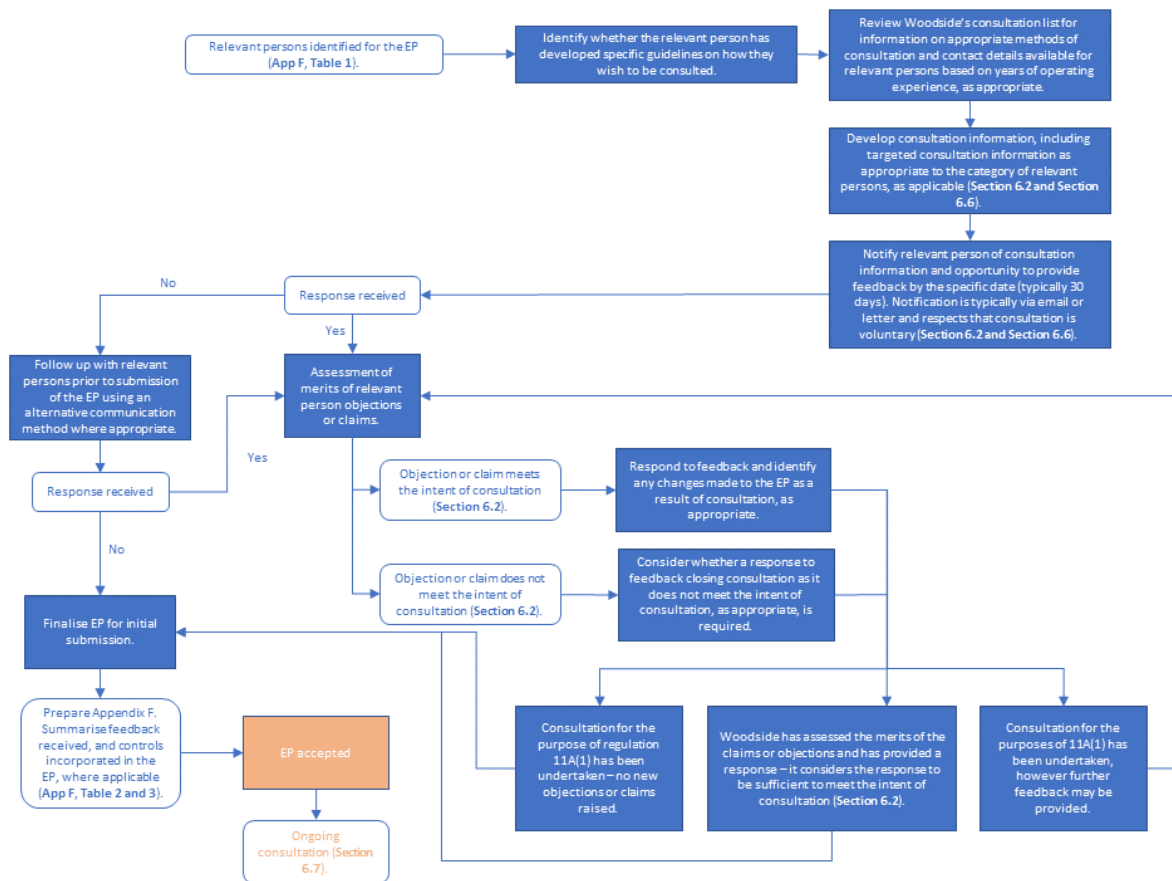


Figure 6-2: Overview of Woodside’s consultation approach.

The methodology for consultation for this activity has been informed by various guidelines and relevant information for consultation on planned activities, including:

- Federal Court:
 - Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193
- NOPSEMA:
 - GL2086 – Consultation in the course of preparing an environment plan – May 2023

- GN1847 - Responding to public comment on environment plans - July 2022
- GN1344 - Environment plan content requirements - September 2020
- GL1721 - Environment Plan Decision Making Guideline - December 2022
- GN1488 - Oil pollution risk management - July 2021
- GN1785 – Petroleum activities and Australian Marine Parks – June 2023
- GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023
- PL2098 – Draft Policy for managing gender-restricted information
- Consultation on offshore petroleum environment plans – Information for the community
- Department of Climate Change, Energy, the Environment and Water:
 - Sea Countries of the North-West; Literature review on Indigenous connection to and uses of the North West Marine Region
- Australian Fisheries Management Authority:
 - Petroleum industry consultation with the commercial fishing industry
- Commonwealth Department of Agriculture and Water Resources:
 - Fisheries and the Environment – Offshore Petroleum and Greenhouse Gas Act 2006
 - Offshore Installations Biosecurity Guide
- WA Department of Primary Industries and Regional Development:
 - Guidance statement for oil and gas industry consultation with the Department of Fisheries
- WA Department of Transport:
 - Offshore Petroleum Industry Guidance Note
- Good practice consultation:
 - IAP2 Public Participation Spectrum
- Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Act 1999

6.3 Identification of Relevant Persons for Consultation

6.3.1 Regulations 11A(1)(a), (b) and (c)

The relevant inquiry for determining relevant persons within the description of regulations 11A(1)(a) and (b) is whether the activities to be carried out under the EP may be relevant to one of the government departments or agencies in those regulations. The government departments and agencies relevant to the EP are listed in Appendix F, Table 1. In accordance with regulation 11A(1)(c), Woodside consults with the department of the relevant State Minister.

6.3.2 Identification of Relevant Persons Under Regulation 11A(1)(a), (b) and (c)

Woodside's methodology for identifying relevant persons under regulations 11A(1)(a), (b) and (c) is as follows:

- Woodside considers the defined responsibilities of each of the departments and agencies to which the activities in the EMBA to be carried out under the EP may be relevant. This list of relevant department and agencies is formulated by reference to the responsibilities of the

government departments as set out on their websites, in NOPSEMA’s GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area guideline (January 2023), which describes where the Department is a relevant agency under the Environment Regulations, as well as experience and knowledge that Woodside has gained from years of operating in relation to the departments and agencies which Woodside has historically consulted over the years. This list is revised from time to time, for example, for the purposes of accommodating government restructures, renaming of departments, shifting portfolios and/or to account for new agencies that might arise.

- Woodside has categorised government department or agency groups as follows:

Government departments / agencies – marine	Agencies with legislated responsibilities for use of the marine environment.
Government departments / agencies – environment	Agencies with legislated responsibilities for the protection of the marine environment.
Government departments / agencies – industry	The legislated Department of the responsible Commonwealth, State or Northern Territory Minister for Industry.

- Woodside considers each of the responsibilities of the departments and agencies and determines whether those responsibilities overlap with potential risks and impacts specific to the proposed petroleum activity in the EMBA. The assessment is both activity and location based.
- Woodside acknowledges the roles and responsibilities of government departments and agencies acting on behalf of various industry participants. For example, AMSA – Marine Safety is responsible for the safety of vessels and the seafarers who are operating in the domestic commercial shipping industry and AHO is responsible for maritime safety and Notices to Mariners. To undertake the PAP in a manner that prevents a substantially adverse effect on the potential displacement of marine users, Woodside therefore consults AMSA – Marine Safety and AHO on its proposed activities. Woodside considers each of the responsibilities of the departments and agencies and determines those that would either be involved in the incident response itself or in relation to the regulatory or decision-making capacity with respect to planning for the unlikely event of a worst-case hydrocarbon release incident response specific to the PAP. Feedback received, if any, is assessed in accordance with the intended outcome of consultation.
- The list of those government departments and agencies assessed as relevant is set out in Appendix F, Table 1.
- Feedback received, if any, is assessed in accordance with the intended outcome of consultation and summarised at Appendix F, Table 2 and Table 3 as appropriate to the relevance assessment.

Woodside does not consult with departments or agencies with interests that do not overlap with risks and impacts specific to the proposed petroleum activity in the EMBA or would not be involved in incident response planning.

6.3.3 Regulation 11A(1)(d)

In order to identify a relevant person for the purposes of regulation 11A(1)(d), the meaning of “functions, interests or activities” needs to be understood. In regulation 11A(1)(d), the phrase “functions, interests or activities” should be construed broadly and consistently with the objects of the Environment Regulations (regulation 3) and the objects of the EPBC Act (section 3A).

In developing its methodology for consultation, Woodside acknowledges that the guidance on the definition of functions, interests and activities is as follows in accordance with NOPSEMA’s *GL2086 – Consultation in the course of preparing an environment plan* guideline (May 2023):

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Functions	Refers to a power or duty to do something.
Interests	Conforms to the accepted concept of 'interest' in other areas of public administrative law and includes any interest possessed by an individual whether or not the interest amounts to a legal right or is a proprietary or financial interest or relates to reputation.
Activities	Broader than the definition of 'activity' in Regulation 4 of the Environment Regulations and is likely be directed to what the relevant person is already doing.

Woodside’s methodology for determining ‘relevant persons’ for the purpose of regulation 11A(1)(d) of the Environment Regulations includes consideration of:

- whether a person or organisation has functions interests or activities that overlap with the Operational Area and EMBA; and
- whether a person or organisation’s functions, interests or activities may be affected by Woodside’s proposed planned or unplanned activities.

6.3.4 Identification of Relevant Persons Under Regulation 11A(1)(d)

Relevant persons under regulation 11A(1)(d) are defined as a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the EP, or a revision of the EP. In identifying relevant persons, Woodside considers:

- the planned activities to be carried out under this EP (described in Section 4); and
- the EMBA by unplanned activities (identified in Section 5 and assessed in Section 6).
- To identify relevant persons who fall within regulation 11A(1)(d), Woodside adopts the following methodology, and then undertakes consultation with relevant persons.
- As a general proposition, Woodside assesses whether a person or organisation is a relevant person having regard to:
 - whether a person or organisation has functions interests or activities that overlap with the Operational Areas and EMBA; and
 - whether a person or organisation's functions, interests or activities may be affected by Woodside’s proposed planned or unplanned activities.
- This assessment will include applying professional judgement, knowledge and current literature.
- Further, to assist in identifying the full range of relevant persons, Woodside considers the impacts and risks associated with its proposed activities and considers the broad categories of relevant persons who may be affected by the activities. The broad categories are identified in Table 6-1 below and identification methodology applied as set out in Table 6-2.
- The list of those persons or organisations assessed as relevant and persons or organisations Woodside chose to contact is set out in Appendix F, Table 1.
- Feedback received, if any, is assessed in accordance with the intended outcome of consultation and applying the categories of relevant persons methodology outlined in Table 6-2, as appropriate.
- Feedback from relevant persons is summarised at Appendix F, Table 2. Feedback from persons assessed as not relevant but whom Woodside chose to contact or self-identified and Woodside assessed as not relevant are summarised at Appendix F, Table 3.

Table 6-1: Categories of relevant persons

Category	Explanation
Commercial fisheries (Commonwealth and State) and peak representative bodies	Commonwealth or State Commercial Fishery with a fishery management plan recognised under the Commonwealth Fisheries Management Act 1991 (Cth) and Western Australian Fish Resources Management Act 1994 (WA), which may be amended from time to time. Commonwealth peak fishery representative bodies are identified by AFMA. WAFIC is the peak representative body for state fishers in Western Australia.
Recreational marine users and peak representative bodies	Charter boat, tourism and dive operators identified by DPIRD specific to the location of the proposed activity. Representative bodies are the recognised peak organisation(s) for recreational marine users.
Titleholders and Operators	Registered holder of an offshore petroleum title or GHG title governed by the <i>OPGGGS Act</i> and associated regulations.
Peak industry representative bodies	Recognised peak organisation(s) for the oil and gas sector.
Traditional Custodians (individuals and/or groups/entity)	Traditional Custodians are First Nations Australians who hold cultural rights and interests, or have cultural functions or perform cultural activities over particular lands and waters. Where a First Nations person, group or entity self-identifies and/or asserts cultural rights, interests, functions or activities they will be included in the definition of Traditional Custodian for the purpose of this EP.
Nominated Representative Corporations	Nominated representative corporations are Traditional Custodians' nominated representative institutions such as Prescribed Body Corporates (PBC). PBCs are established under the Native Title Act 1993 by Traditional Custodians to represent their entire Traditional Custodian group (defined broadly by reference to descents from an ancestor set who were known to be the Traditional Custodians at the time of European colonisation) and their interests including, among other things, management and protection of cultural values.
Native Title Representative Bodies	A Representative Aboriginal/Torres Strait Islander Bodies (RATSIB) is a regional organisation appointed under the Native Title Act 1993 (NTA) with prescribed functions, set out in Part 11 of the Native Title Act 1993, which relate to: facilitation and assistance; certification; dispute resolution; notifications; agreement making. They are also known, and referred to here, as Native Title Representative Bodies.
Historical heritage groups or organisations	Legislated or government enlisted groups or organisations responsible for the management of marine heritage.
Local government and recognised local community reference/liaison groups or organisations	Local government governed by the <i>Local Government Act 1995 (WA)</i> which is responsible for representing the local community. Recognised local community reference/liaison group or organisation in relation to oil and gas matters.
Other non-government groups or organisations	Non-government organisation with public website material targeting the proposed activity.
Research institutes and local conservation groups or organisations	Research institutes are government or private institutions that conduct marine or terrestrial research. Local conservation groups are local non-government organisation that regularly conduct conservation activities focused on the local environment or wildlife.

Table 6-2 Methodology for identifying relevant persons within the EMBA undertaken under subcategory 11A(1)(d) – by category

Category	Relevant person identification methodology
Commercial fisheries (Commonwealth and State) and peak representative bodies	Woodside assesses relevance for commercial fisheries (Commonwealth and State) and their representative bodies using the following next steps in its methodology: <ul style="list-style-type: none"> Defining the parameters having regard to timing, location and duration of the proposed petroleum activity.

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Category	Relevant person identification methodology
	<ul style="list-style-type: none"> • Confirming whether the EMBA overlaps with the fisheries management area (i.e. the spatial area the fishery is legally permitted to fish in) (see Section 5.6.2). • Woodside acknowledges WAFIC’s consultation guidance³ (accessed on 2 February 2023), that Titleholders develop separate consultation strategies for significant unplanned events (for example oil spill) where Titleholders can demonstrate the likelihood of such events occurring is extremely low. WAFIC’s guidance is that consultation on unplanned events resulting in an emergency scenario should only be undertaken if an incident occurs (see Appendix D). • For Commonwealth and State commercial fisheries, Woodside assesses the potential spatial and temporal extent for interaction with the fishery by reviewing AFMA ABARES and DPIRD Fishcube data within the Operational Area and EMBA (see Section 5.6.2). <p>Assessment of relevance:</p> <ul style="list-style-type: none"> • State commercial fisheries that have been assessed as having a potential for interaction within the Operational Area or EMBA (see Section 5.6.2) are assessed as relevant to the proposed activity. Woodside acknowledges WAFIC’s consultation guidance¹ (see above) and applies this by: <ul style="list-style-type: none"> – directly consulting fishery licence holders that are assessed as having a potential for interaction in the Operational Area; and – consulting fisheries that are assessed as having a potential for interaction in the EMBA via WAFIC. • Commonwealth commercial fisheries that have been assessed as having a potential for interaction within the Operational Area or EMBA (see Section 5.6.2) are assessed as relevant to the proposed activity. • If Woodside has identified that a Commonwealth or State fishery is a relevant person, then Woodside also consults the fisheries relevant representative body. For example, WAFIC represents the interests of State fisheries in Western Australia. If a State fishery is identified as relevant, Woodside would also identify WAFIC as relevant. Recognised Commonwealth fishery representative bodies are identified by AFMA via its website. WAFIC is the only recognised State fishery representative body.
<p>Recreational marine users and peak representative bodies</p>	<p>Woodside assesses relevance for recreational marine users and peak representative bodies using the following next steps in its methodology:</p> <ul style="list-style-type: none"> • From Woodside knowledge and operating experience, knowledge of recreational marine users in the area. This assessment is both activity and location based. • Defining the parameters having regard to timing, location and duration of the proposed petroleum activity. • Assessing the potential spatial and temporal extent for interaction with recreational marine users by reviewing DPIRD Fishcube data to assess whether there has been activity within the EMBA in the past 5 years. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> • Recreational marine users that have been active in the past 5 years within the EMBA are assessed as relevant to the proposed activity. Woodside is provided with the contact details of charter, boat tourism and dive operators specific to the region of the EMBA by DPIRD to consult with the relevant persons. • If Woodside has identified recreational marine users as relevant persons, then Woodside also consults identified peak recreational marine user representative bodies. For example, Recfishwest represents the interests of recreational fishers. These representative bodies are identified via Woodside’s existing consultation list, which is updated as appropriate via advice from known groups and DPIRD.
<p>Titleholders and Operators</p>	<p>Woodside assesses relevance for other Titleholders and operators using the following next steps in its methodology:</p> <ul style="list-style-type: none"> • Using WA Petroleum Titles (DMIRS-011) to determine overlap with other Titleholders or Operators permit areas within the EMBA.

³ Consultation [Approach for Unplanned Events - WAFIC](#)

Category	Relevant person identification methodology
	<ul style="list-style-type: none"> • From Woodside knowledge and operating experience, knowledge of other operators in the area. • Woodside produces a map showing the outcome of this assessment. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> • Titleholders and Operators whose permit areas are identified as having an overlap within the EMBA are assessed as relevant.
Peak industry representative bodies	<p>Woodside assesses relevance for peak industry representative bodies using the following next steps in its methodology:</p> <ul style="list-style-type: none"> • Review of peak industry representative bodies responsibilities that Woodside actively participates in, with consideration of overlap between industry focus area and Woodside’s proposed activities within the EMBA. • Review of Woodside’s existing consultation list. • Website search to identify whether any additional peak industry representative bodies have been created whose responsibilities may overlap with Woodside’s proposed activities within the EMBA. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> • Peak industry representative bodies whose responsibilities are identified as having an overlap with Woodside’s proposed activities within the EMBA are assessed as relevant.
Traditional Custodians (individuals and/or groups/entity) and Nominated Representative Corporations	<p>Consistent with its understanding of the matters discussed in Section 5.6, to identify Traditional Custodian groups or individuals, Woodside:</p> <ul style="list-style-type: none"> • Uses existing systems of recognition to identify First Nations groups who overlap or are coastally adjacent to the EMBA (for example, recognition provided under native title or cultural heritage legislation, or marine park management plans, or identification by other First Nations groups or entities); • Notifies and invites consultation with First Nations people through their nominated representative corporation (for example PBCs); or, in the case of native title, and where appropriate, the Native Title Representative Body • Requests the nominated representative body to forward the notifications and invitations to consult to their members (members are individual communal rights holders); • Requests advice as to other First Nations groups or individuals that should be consulted; • Advertises widely so as to invite self-identification and consultation by First Nations groups and/or individuals. <p>Further detail to Woodsides methodology is as follows.</p> <p>Woodside uses the databases of the National Native Title Tribunal:</p> <ul style="list-style-type: none"> • to understand whether there are any Native Title Claims (historical or current) or determinations overlapping or coastally adjacent to the EMBA; • to understand whether there are any relevant Indigenous Land Use Agreements (ILUA), registered with the National Native Title Tribunal that overlap or are adjacent to the EMBA that may identify Traditional Custodians or representative bodies to contact regarding potential cultural values. • Where there is a positive determination of native title, contacting the PBC or, where their representative is a Native Title Representative Body contacting the Native Title Representative Body. • Where appropriate, contacting the relevant Native Title Representative Body to request a list of any First Nations groups asserting Traditional Custodianship over an area of coastline adjacent to the EMBA. • Review of Commonwealth and State Marine Park Management Plans that overlap the EMBA which may identify Traditional Custodians or representative bodies to contact regarding potential cultural values. • First Nations groups or individuals identified by a Traditional Custodian, nominated representative corporation, Native Title Representative Body.

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Category	Relevant person identification methodology
	<ul style="list-style-type: none"> Request to the PBC to distribute Woodside consultation materials through its membership. Woodside is unable to contact this membership through any other means. Woodside has a number of public notification and information sharing processes by which individual Traditional Custodians can become aware of the proposed activity, its risks and impacts, and self identify. Individuals that consider their functions, interests or activities may be affected by a proposed activity are provided an opportunity to self-identify for each EP. Woodside does not presume that self-identification for an activity, covered by another EP, automatically means that an individual/s functions, interest and activities may be affected by other activities where EMBA's overlap. This decision is for the individual to make. The public notification, information sharing, and consultation processes Woodside puts in place enables Traditional Custodians to become aware of proposed activities, assess any risks and impacts to their values, and enable individuals to self-identify. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> Traditional Custodian groups, entities or individuals and Nominated Representative Corporations who are identified through the above methodology and overlap or are coastally adjacent to the EMBA are assessed as relevant.
<p>Native Title Representative Bodies</p>	<p>Woodside assesses relevance for Native Title Representative Bodies using the following steps in its methodology:</p> <ul style="list-style-type: none"> A Representative Aboriginal/Torres Strait Islander Bodies (RATSIB) is a regional organisation appointed under the Native Title Act 1993 (NTA) with prescribed functions set out in Part 11 of the Native Title Act 1993, which relate to: facilitation and assistance; certification; dispute resolution; notifications; agreement making. They are also known, and referred to here, as Native Title Representative Bodies. Review of National Native Title Tribunal RATSIB areas that overlap or are coastally adjacent to the EMBA. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> Where the area for which a Native Title Representative Body is recognised under the Native Title Act 1993, overlaps with the EMBA or is coastally adjacent to the EMBA, Woodside will assess the Native Title Representative Body as relevant.
<p>Historical heritage groups or organisations</p>	<p>Woodside assesses relevance for groups or organisations whose responsibilities are focused on historical heritage using the following next steps in its methodology:</p> <ul style="list-style-type: none"> Using the Australasian Underwater Cultural Heritage Database to assess any known records Maritime Cultural Heritage sites (shipwrecks, aircraft and relics) within the EMBA (see Section 5.6.1.8). <p>Assessment of relevance:</p> <ul style="list-style-type: none"> Where there is a known underwater heritage site (shipwrecks, aircraft and relics) within the EMBA, the relevant group or organisation that manages the site will be assessed as relevant.
<p>Local government and recognised local community reference/liaison groups or organisations</p>	<p>Woodside assesses relevance for local government and recognised local community reference/liaison groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> Review of Woodside maps (developed based on data from the WA Local Government, Sport and Cultural Industries My Council database and WA Local Government Association (WALGA) Local Government Directory maps) to assess any overlap between the local government's defined area of responsibility and the EMBA. Woodside hosts regular community reference/liaison group meetings. Members represent a cross-section of the community and local towns interests. Representatives are from community and industry and generally include, Woodside, State Government (for instance relevant Regional Development Commissions), Local Government, Indigenous Groups, Industry representative bodies, Community and industry organisations. Woodside considers these reference/liaison groups to be the appropriate recognised representatives of the local community for the oil and gas sector.

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Category	Relevant person identification methodology
	<ul style="list-style-type: none"> Woodside reviews the community reference/liaison group's terms of reference to determine its area of responsibility and any overlap with the EMBA. For example, the Exmouth Community Liaison Group's area of responsibility in relation to Woodside's operational, development and planning activities, is defined in the terms of reference as the Exmouth sub-basin. Comparatively, the Karratha Community Liaison Group's area of responsibility is the Pilbara region (i.e. onshore). <p>Assessment of relevance:</p> <ul style="list-style-type: none"> The local government whose defined area of responsibility overlaps the EMBA is assessed as relevant. The community reference/liaison group whose defined area of responsibility overlaps the EMBA is assessed as relevant and consulted collectively via the relevant reference/liaison group.
Other non-government groups or organisations	<p>Woodside assesses relevance for other non-government groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> Review of Woodside's existing consultation list. Website search of registered non-government groups or organisations (i.e. registered with an Australian Business Number (ABN) and publicly available contact information) that may have public website material specific to the proposed activity at the time of development of the EP. Organisation has a publicly available mission statement (or purpose) that clearly describes their collective functions, interests or activities. Review of current website material to identify targeted information which demonstrates functions, interests or activities relevant to the potential risks and impacts associated with planned activities. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> Registered non-government groups or organisations with current targeted public website material specific to the proposed activity at the time of developing the EP and who have demonstrated functions, interests or activities relevant to the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation will be assessed as relevant.
Research institutes and local conservation groups or organisations	<p>Woodside assesses relevance for research institutes and local conservation groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> Review of Woodside's existing consultation list. Website search for research institutes that may operate within the EMBA. This assessment is both activity and location based. Website search for local conservation groups or organisations that regularly conduct conservation activities within the EMBA. <p>Assessment of relevance:</p> <ul style="list-style-type: none"> Where there is known research being undertaken by a research institute within the EMBA, the research institute that is conducting the research will be assessed as relevant. Local environmental conservation groups who regularly conduct conservation activities or have demonstrated conservation functions, interests or activities within the EMBA are assessed as relevant. This assessment is both activity and location based.

6.3.5 Regulation 11A(1)(e)

In addition to assessing relevance under regulation 11 A(1)(d), Woodside has discretion to categorise any other person or organisation as a relevant person under regulation 11A(1)(e).

6.3.6 Identification of Relevant Persons Under Regulation 11A(1)(e)

Woodside adopts a case-by-case approach for each EP to assess relevance under regulation 11A(1)(e).

6.3.7 Persons or Organisations Woodside Chooses to Contact

In addition to undertaking consultation with relevant persons under regulation 11A(1) there are persons or organisations that Woodside chooses to contact, from time to time, in relation to a proposed activity. For example, these are persons or organisations:

- That are 'not relevant' pursuant to regulation 11A(1) but that Woodside has chosen to seek additional guidance from, for example, to inform the correct contact person that Woodside should consult, or engage with;
- That are 'not relevant' pursuant to regulation 11A(1) but have been contacted as a result of consultation requirements changing or updated guidance from the Regulator; and
- Where it is unclear what their functions, interests or activities are, or whether their functions, interests or activities may be affected. In this circumstance, engagement is required to inform relevance under Woodside's methodology. Woodside follows the same methodology for assessing a person or organisations relevance as it does during its initial assessment (as described in Figure 5-1 and Section 6.3). The result of Woodside's assessment of relevance during the development of the EP is outlined at Appendix F, Table 1.

Engagement undertaken with persons or organisations Woodside assessed as not relevant but chose to contact are summarised at Appendix F, Table 2.

6.3.8 Assessment of Relevant Persons for the Proposed Activity

The result of Woodside's assessment of relevant persons in accordance with regulation 11A(1) is outlined at Appendix F, Table 1 and Appendix F, Table 2.

Persons or organisations that Woodside assessed as not relevant but chose to contact at its discretion in accordance with Section 6.3.4 or self-identified and Woodside assessed as not relevant are summarised at Appendix F, Table 1 and Appendix F, Table 3.

6.4 Consultation Material and Timing

Regulation 11A(2) provides that a titleholder must give each relevant person sufficient information to allow the relevant person to make an informed assessment of the possible consequences of the activity on the functions, interests or activities of the relevant person. Regulation 11A(3) provides that the titleholder must allow a relevant person a reasonable period for the consultation.

As set out in Section 6.2, Woodside notifies relevant persons, of the proposed activities, respecting that consultation is voluntary (for the relevant person) and collaborates on a consultation approach where further engagement is sought by the relevant person. Woodside understands that the consultation process should be appropriate for the category of relevant persons and that not all persons or organisations will require the same level of engagement. Woodside recognises that the level of engagement is dependent on the nature and scale of the PAP. Woodside recognises published guidance for good practice consultation relevant to different sectors and disciplines. Woodside's methodology for providing relevant persons with sufficient information as well as a reasonable period of time to provide feedback is set out in this section.

6.4.1 Sufficient Information

Woodside produces a Consultation Information Sheet for each EP. This is provided to relevant persons and organisations and is also available on Woodside's website for interested parties to access and to provide feedback on. The Consultation Information Sheet typically includes a description of the proposed petroleum activity, the Operational Areas where the activity will take place, the timing and duration of the activity, a location map of the Operational Area and EMBA, a description of the EMBA, relevant exclusion zones as well as a summary of relevant risks and

mitigation and/or management control measures relevant to the proposed petroleum activity. It also sets out contact details to provide feedback to Woodside.

Woodside recognises that the level of information necessary to assist a person or organisation to understand the impacts of the proposed activity on their functions, interests or activities may vary and, also may depend on the degree to which a relevant person is affected. For example, Woodside considers that relevant persons who may be impacted by planned activities in the Operational Area, as a result of temporary displacement due to exclusion zones, may require more targeted information relevant to their functions, interests or activities. Woodside also acknowledges NOPSEMA's brochure entitled Consultation on offshore petroleum environment plans information for the community, which advises consultees that they may inform titleholders that they only want to be consulted in the very unlikely event of an oil spill.

Woodside places advertisements in selected local, state and national newspapers. This typically includes the name of the EP Woodside is seeking feedback on, an overview of the activity, the consultation feedback date and the ways in which a person or organisation can provide feedback. Advertising in the local paper in the area of the activity is also consistent with the public notification process under section 66 of the Native Title Act for native title applications. Woodside typically aligns advertisement feedback timeframes with the timing described below. Feedback received is assessed in accordance with Section 6.3 to determine relevance and evidenced in Appendix F, Table 1 as appropriate.

Woodside utilises a range of tools to provide sufficient information to relevant persons, which may include one or more of the following:

- Consultation Information Sheet available on Woodside's website
- Summary Consultation Information Sheet, presentations or summaries specific to a particular relevant person group
- Subscription available on Woodside's website to receive notification of new Consultation Information Sheets for Woodside EPs
- Emails
- Letters
- Phone calls
- Face-to-face meetings (virtual or in person) with presentation slides or handouts as appropriate
- Maps outlining a persons or organisations defined area of responsibility in relation to the proposed activity, for example a fisheries management area or defence training area, and
- Community meetings, as appropriate.

Woodside recognises that information may need to be provided to relevant persons in an iterative manner during the consultation process. Woodside considers that in line with the intent of consultation, the threshold for genuine two-way engagement is met via information on incorporation of controls, where applicable, being provided to the relevant person to ensure the relevant persons understand how their input has been considered in the development of the EP.

Woodside communicates with relevant persons in different ways. Woodside recognises that as part of genuine two-way dialogue, these forms of communication may evolve, including for example due to changes to organisation representation, as relationships are further established, or an alternative form of communication is expressed by a person or organisation. Woodside acknowledges that there might be limitations in how it can consult with relevant persons.

Typical forms of communications for categories of relevant persons are set out below.

Category of relevant person	Typically accepted form of communication
Government departments / agencies – marine	Woodside applies NOPSEMA’s guideline for engagement with Commonwealth government departments or agencies in line with GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023 by using email for its consultation unless another form of communication is requested.
Government departments / agencies – environment	
Government departments / agencies – industry	Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
Commercial fisheries and peak representative bodies	<p>Commonwealth commercial fisheries: Email is used as the primary form of communication with Commonwealth commercial fisheries in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p> <p>State commercial fisheries and recreational marine users: The Western Australian Department of Primary Industries and Regional Development (DPIRD) has responsibility for managing the Fish Resources Management Act 1994 and Aquatic Resources Management Act 2016, which limits the provision of contact details from the register to the name and business address of licence holders. Alternative forms of communication are at the licence holder’s discretion. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p> <p>Peak representative bodies: Email is used as the primary form of communication with commercial fishery and recreational marine user peak representative bodies in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p>
Recreational marine users and peak representative bodies	
Titleholders and Operators	Email is used as the primary form of communication between titleholders and operators in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
Peak industry representative bodies	Email is used as the primary form of communication with peak representative bodies in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
Traditional Custodians and nominated representative corporations	There are many forms of communication that Woodside uses on a case-by-case basis and as appropriate to or requested by the specific group, such as email, phone calls, meetings and community forums. Other forms of communication are used on request.
Native Title Representative Bodies	There are many forms of communication that Woodside uses on a case-by-case basis and as appropriate to or requested by the specific group, such as email, phone calls, meetings and community forums. Other forms of communication are used on request.
Historical heritage groups or organisations	NOPSEMA’s guideline (GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023) for engagement with government departments or agencies is used as a reference for Woodside’s approach for communicating with historical heritage groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
Local government and recognised local community reference/liason groups or organisations	<p>Local government: NOPSEMA’s guideline (GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023) for engagement with local government is used as a reference for Woodside’s approach for communicating with historical heritage groups or organisations.</p> <p>Community reference/liason groups and chambers of commerce: Email is used as the primary form of communication with local community reference/liason groups or organisations in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p>
Other non-government groups or organisations	Email is used as the primary form of communication with Other non-government groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.

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Research Institutes and Local conservation groups or organisations	Email is used as the primary form of communication with research institutes and local conservation groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
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Information which is provided to relevant persons for the purposes of consultation on this EP is summarised at Appendix F, Table 2.

Appendix F, Table 3 sets out the information which is provided to persons or organisations that are not relevant for the purposes of regulation 11A but which Woodside has chosen to contact.

When engaging in consultation, Woodside notifies relevant persons that, in accordance with regulation 11A(4), the relevant person may request that particular information the person or organisation provides in the consultation not be published and that information subject to that request will not be published.

6.4.2 Reasonable Period for Consultation

Woodside seeks to consult in order to support preparation of its Environment Plan. Woodside recognises that what constitutes a reasonable period for consultation should be considered on a case-by-case basis, with reference to the nature, scale and complexity of the activity.

Woodside recognises that information may need to be provided to relevant persons in an iterative manner during the consultation process. Woodside considers that in line with the intent of consultation, the threshold for genuine two-way engagement is met via engagement on incorporation of controls, where applicable, being provided to the relevant person so that the relevant person understands how their input has been considered in the development of the EP.

Woodside considers its methodology allows relevant persons a reasonable period for consultation (regulation 11A(3)). A reasonable period for all relevant persons, including Traditional Custodian relevant persons, to participate in consultation for this EP has been provided.

The consultation period under this EP has satisfied benchmark periods under other relevant legislative processes:

- Consultation under regulation 11B of the Regulations sets out a public consultation period of 30 days
- The Department of Mines and Petroleum “Guidelines for Consultation with Indigenous People by Mineral Explorers” directs a period of 21- 30 days of consultation with traditional owners
- Guidance taken from the Aboriginal Cultural Heritage Act 2021—Consultation Guidelines (Government of Western Australia, 2023) suggests that up to 12 weeks may be a reasonable period of time to allow identification, contact, and response, from First Nations peoples (subject to any alternative timeframe being agreed through co-design of consultation).

This period of consultation demonstrates that Woodside has provided a “reasonable period” for relevant persons to consult in accordance with regulation 11A(3). Commentary in the Tipakalippa Appeal judgment limits consultation to a process that must be capable of being discharged within a reasonable time:

“It must be taken to be the regulatory intention that the consultation requirement cannot be one that is incapable of being complied with within a reasonable time...”⁴

Woodside seeks feedback in order to support preparation of its environment plan. What constitutes a reasonable period for consultation is considered on a case-by-case basis, with reference to the person being consulted and the nature, scale and complexity of the activity.

⁴ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [136].

Woodside's typical approach to enable a reasonable period for consultation is as follows:

- Advertising in selected local, state and national newspapers to give persons or organisations the opportunity to understand the activity and identify whether their functions, interests or activities may be affected;
- Providing consultation materials directly to identified relevant persons as well as persons who are not relevant but Woodside chose to contact, and providing a target date for feedback. Woodside acknowledges that feedback may be received from relevant persons following the target date;
- Acknowledging that the way in which Woodside provides consultation information may vary depending on the relevant person or organisation and, may depend on the degree to which a relevant person or organisation is affected. Different consultation processes may be required for relevant persons and organisations depending on the information requirements;
- Following up with relevant persons prior to EP submission. Where possible, Woodside will endeavour to use an alternative method of communication to contact the relevant person; and
- Engaging in two-way dialogue with relevant persons or organisations where feedback is received.

Appendix F, Table 2 and Table 3 sets out a history of consultation and demonstrates that a reasonable period of consultation has been afforded for each relevant person.

Woodside considers that the “reasonable period” of consultation for this EP has closed.

As detailed in Section 6.6, if comments and feedback are received after the EP has been submitted, Woodside will consider those comments and update controls as appropriate, at all stages during the life of the EP as per Woodside’s ongoing consultation approach as described in Section 6.7.

6.4.3 Discharge of Regulation 11A

The Full Federal Court made clear in the Tipakalippa Appeal that consultation should be approached in a “reasonable”, “pragmatic” and “not so literal” way, so that consultation obligations were capable of being met by titleholders (Section 6.5.1).⁵ Consultation is a “real world activity” and must be capable of reasonable discharge.⁶ The Full Federal Court referred to Native Title cases as an illustration that reasonable limits should be applied to consultation efforts to ensure the process is workable.⁷

When the titleholder demonstrates that it has provided sufficient information and a reasonable period for consultation, the regulation 11A consultation requirements are met.⁸ Meeting these requirements is the evaluative judgment to determine reasonable satisfaction of the consultation obligation, and as such, the regulator uses its discretion to determine if these criteria are met. The nature of the person being consulted, and their function, interest and activity that may be affected, will inform the manner of consultation and the reasonable period to be afforded.⁹

The titleholder is not required to obtain consent from a consultee to engage in the activity or confirmation from a consultee that consultation is complete. A titleholder is required to provide an opportunity to consult.

⁵ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 [89], [98], [103]-[104] and [109].

⁶ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [89].

⁷ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [96] and [103].

⁸ Explanatory Statement, Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023, page 29.

⁹ Explanatory Statement, Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023, page 30 and Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [153].

The Federal Court has commented that a “reasonable opportunity” for consultation must be afforded to relevant persons.¹⁰ A reasonable opportunity may not be every opportunity requested and is limited to reasonable opportunities to consult.

Woodside has completed all practicable and reasonable steps to discharge its consultation obligations. Woodside has provided sufficient information and a reasonable period of time to enable relevant persons to make an informed assessment of the possible impacts and risks of the activity on their functions, interests or activities, and sufficient time to provide relevant feedback for Woodside to assess relevant persons' claims and action the assessment and response. Woodside has also provided a reasonable opportunity for relevant persons to engage in genuine two-way dialogue on environmental impacts and concerns.

Woodside has discharged its duty under regulation 11A. Woodside considers that consultation under regulation 11A is complete.

Appendix F, Table 2 and Table 3 of this EP sets out the history of consultation under regulation 11A. To the extent a relevant person says that it has further information to share or claims that consultation under regulation 11A has not completed, Appendix F, Table 2 and Table 3 provide reasons specifically why Woodside considers consultation under regulation 11A has been met in relation to that relevant person.

6.5 Context of Consultation Approach with First Nations

To comply with regulation 11A, Woodside identifies and consults Traditional Custodians whose functions, interests or activities may be affected by the activities under an Environment Plan.

6.5.1 Approach to Methodology – Woodside’s Interpretation of Tipakalippa Appeal

Woodside has implemented a consultation methodology consistent with regulation 11A and guidance provided in the Tipakalippa Appeal (Section 6.2). Woodside’s consultation methodology allows for a sufficiently broad capture of Traditional Custodian relevant persons, provides for informed consultation, follows cultural protocols and allows a reasonable opportunity for consultation with Traditional Custodians whose functions, interests and activities may be affected by the activity described in this EP (Section 6.5.2.1 to 6.5.2.4).

Woodside notes the Full Federal Court discussed several *Native Title Act 1993* (Cth) (NTA) cases in response to a submission made in that case that a requirement under regulation 11A to consult “each and every” relevant person would be “unworkable”. The reference to native title cases dealt with how decision-making processes under the NTA requiring “all” members of a group to be contacted for communal approval are interpreted by courts in a “reasonable”, “pragmatic” and “not so literal” way,¹¹ and how obligations to consult “each and every” person under regulation 11A should be interpreted in a similarly pragmatic way so that consultation is workable. The reference to NTA authorities was made by analogy:

“It can be seen that the terms of [the native title legislation] are somewhat absolute – “all”. However, [the native title legislation] has consistently been construed in a way that is not so literal ... The cases concerning [the native title legislation] ... have reiterated ... that [the native title legislation] does not require that “all” of the members of the relevant claim group be involved in the decision. The key question will be whether a reasonable opportunity to participate in the decision-making process has been afforded by the notice for a relevant meeting.”¹²

¹⁰ Cooper v National Offshore Petroleum Safety and Environmental Management Authority (No 2) [2023] FCA 1158 at paragraph [11]; Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [153].

¹¹ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [95], [98], [103]-[104] and [109].

¹² Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [98].

“We consider the authorities in relation to processes under the NTA to be illustrative of how a seemingly rigid statutory obligation to consult persons holding a communal interest may operate in a workable manner”¹³ (emphasis added).

“There is no definition of what constitutes “consultation for the purpose of ref 11A... A titleholder will need to “demonstrate” to NOPSEMA that what it did constituted consultation appropriate and adapted to the nature of the interests of the relevant persons”¹⁴ (emphasis added).

It is clear from the Court's statement in relation to consultation with organisations that a Titleholder will have some decisional choice in identifying which natural person(s) are to be approached, how the information will be given to allow the "relevant person" to assess the possible consequence of the proposed activities on their functions, interests or activities, and how the requisite consultation is undertaken.¹⁵ Woodside takes this to mean that consultation is not fixed to a rigid process, and indeed, will need to be adapted so that it is informed by the relevant person or group. Woodside has met its regulation 11A requirements through its consultation methodology (Section 6.2).

Consistent with the Tipakalippa Appeal, Woodside considers NTA-style “full group” meetings are not the only way for there to be compliance with regulation 11A in relation to Traditional Custodian relevant persons. Nominated representative corporations (such as Prescribed Bodies Corporates (PBCs) established under the NTA) have a designated role of representing the views of their member Traditional Custodians. They have established methods for engaging with their own members. Woodside will not undermine the purpose and authority of nominated representative corporations by requiring full group meetings where the nominated representative corporations have not requested engagement of members via full group meetings. We do not consider it appropriate for titleholders to direct or challenge the nominated representative corporations on how to engage with their members.

Woodside's approach described below demonstrates that sufficient information and a reasonable opportunity is provided to individual Traditional Custodians to provide feedback on Woodside activities beyond the opportunity provided to nominated representative corporations.

6.5.2 Consultation Method

Woodside's First Nations team has extensive expertise in engaging and working with First Nations organisations and individuals, including having worked within the Commonwealth native title and cultural heritage systems and state and territory cultural heritage and land rights systems, for several decades. The team understands the complexities of making information accessible to groups and individuals and engaging in accordance with First Nations groups' established channels of communication and methods of consultation. The First Nations team exercises its professional judgement and is deeply respectful of long-standing relationships (where in place) when considering consultation with First Nations groups. The First Nations team's approach is also informed by the established systems of recognition for First Nations groups and their nominated representative corporations within particular jurisdictions.

For example, the methodology for engaging with First Nations groups in the Northern Territory (not relevant for this EP) tends to centre around engagement through Aboriginal land councils (under the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth)) as well as community meetings that target clan groups where they do not have PBCs or other nominated representative corporations to represent them. By contrast, recognition for First Nations groups and their nominated representative corporations in Western Australia falls under the *Native Title Act 1993* (Cth) because the vast majority of the Western Australian coastline is settled under the native title regime. This means that the methodology and process for consultation in Western Australia places greater emphasis on, but is not limited to Native Title Representative Bodies and PBCs. Native title determinations provide

¹³ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [96].

¹⁴ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [104].

¹⁵ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [47] and [48].

certainty about the appropriate Traditional Custodian groups that have the cultural authority to speak for country adjacent to the EMBA, and also help Woodside to identify Traditional Custodian persons and groups asserting Traditional Custodianship. The Full Court in the Tipakalippa Appeal explicitly endorsed methods of consultation with groups of relevant persons that are appropriate and adapted to the characteristics of groups.¹⁶ Woodside's consultation methodology is adapted and appropriate to the recognised systems of communal interests in Western Australia.

In Western Australia (relevant for this EP), Woodside has sought to follow the established, effective and respectful means of communication used by Native Title Representative Bodies and nominated representative corporations (including PBCs) with their respective First Nations communities. Woodside follows these processes for the appropriate broad capture of individuals' awareness of our activities, to self-identify (Section 6.5.2.2), and to provide feedback to inform the management of environmental impacts and risks.

Using these tools, Woodside communicates information about Environment Plans by:

- Advertising in relevant newspapers. This encourages self-identification, by advertising proposed activities widely through newspapers that have national and intra-state circulation, i.e., Koori Mail, National Indigenous Times, The West Australian;
- Creating carefully considered Consultation Summary Sheets with information developed by an Indigenous member of the First Nations Team to remove jargon and provide relevant information for people to have informed understandings about the activities;
- Direct contact through nominated representative corporations;
- Utilising social media (i.e. Facebook/Instagram), texts and emails. These mediums are the preferred communication methods used by Traditional Custodians throughout Western Australia and on that basis used by Native Title Representative Bodies and other government agencies and industry, to engage with Traditional Custodians or call meetings. First Nations woman, Professor Bronwyn Castle through 10 years of research found "Social media is an intrinsic part of daily life. The use of Facebook is around 20 per cent higher [among First Nations people] than the national average across all geographical locations" (Social media mob: being Indigenous online, Professor Bronwyn Carlson (2018));
- For ongoing consultation post regulation 11A consultation, Woodside introduced a Program of Ongoing Engagement with Traditional Custodians which sets out Woodside's commitment to ongoing engagement and support to care for and manage country, including Sea Country. The program was developed in response to Traditional Custodian feedback;
- Woodside has members of its First Nations team who are based in Karratha and Roebourne and who serve as on-Country points of contact for First Nations organisations and individuals. These team members have broad local knowledge and established, on-the-ground relationships within communities. This helps contribute to positive outcomes including encouraging First Nations attendance and involvement at Woodside's information sessions and Community roadshows. Team members on the ground engage in a great deal of preparatory work including by distributing information and providing notice to the community to support First Nations attendance at information sessions and Community roadshows;
- From the commencement of engagement with Traditional Custodians, Woodside seeks direction on how they prefer to be consulted and has consulted accordingly. Consultation processes that are informed by Traditional Custodians and co-designed on a case-by-case basis and includes their direction as to cultural protocols, structure of consultation and whom to appropriately consult with (such as elders).

¹⁶ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [95],[104],[153].

- Holding meetings on country at a place and time agreed with the Traditional Custodians and offering and providing financial assistance for meeting expenses (as appropriate); and
- Providing information specifically designed to be easily understood, to reach all relevant people, and give a reasonable period of time for those people to make an informed assessment of the possible consequences of the proposed activity on them.

6.5.2.1 Identification of Relevant Persons

In order to undertake consultation, Woodside has developed a methodology for identifying relevant persons, in accordance with regulation 11A(1) of the Regulations (Section 6.2 and 6.3).

Specific to Woodside's approach for identifying relevant Traditional Custodians, Woodside's First Nations Communities Policy and consultation approach is guided by Traditional Custodians by directing consultations through their nominated representative corporation. This has been implemented by Woodside through consultation with a nominated representative corporation where that corporation has advised Woodside that it acts as the representative body for a Traditional Custodian group and has requested that Woodside engage with it as the representative body for that Traditional Custodian group.

Woodside asks nominated representative corporations (such as PBCs) and Native Title Representative Bodies to identify individuals that should be consulted, and enables individuals to self-identify in response to national and local advertising, social media and community engagement opportunities (Section 6.5.2.4). Where there is a nominated representative corporation for an area, unless directed by the nominated representative corporation, Woodside does not directly approach individuals for consultation, because this has the potential to undermine the role of the nominated representative corporations. Approaching individuals directly is a practice that is no longer considered acceptable because of divisions it has been shown to cause in communities. In addition to asking for the identification of individuals, Woodside also asks nominated representative corporations to distribute consultation information to whomever the nominated representative corporations deem appropriate including members of the nominated representative corporations who are communal rights holders.

Having said this, as set out in further detail in Section 6.5.2.4 below, individuals are also given the opportunity to self-identify, consult and provide their own feedback on the proposed activity. When approached in this way, Woodside will engage individuals as relevant persons and will also (subject to any confidentiality or cultural restrictions) advise the nominated representative body of the consultation where it relates to cultural values. These methods of consultation are consistent with requirements for notification under the *Native Title Act 1993* (Cth), such as under the future act provisions (section 29), which requires notification of the Native Title Representative Body, the PBC (or nominated representative) and notification through newspapers. The notification process has been selected as a respectful, practical and pragmatic analogue for consultation with First Nations peoples, rather than requiring members to be notified via a formal authorisation process which aims to seek, from members, authorisation of agreements and native title/compensation claims under the *Native Title Act 1993* (Cth).¹⁷

In this consultation, Woodside requested nominated representative corporations to identify any potential individual relevant persons for consultation, and to distribute consultation materials to their members. However, Woodside recognises that the process is voluntary and that it cannot compel nominated representative corporations (such as PBCs) to do so. Woodside also recognises that it would not be appropriate to seek to audit the nominated representative corporations for compliance with any member consultation request.

¹⁷ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193, at [104]

6.5.2.2 Opportunity to Self-identify and Identifying Other Individuals

Woodside requests nominated representative corporations and Native Title Representative Bodies to identify other individuals to consult with or individuals who may seek to self-identify for a proposed activity. Woodside also advertises broadly through Indigenous, national and local advertising, social media and community engagement opportunities to provide individuals with an opportunity to consult. Woodside does not directly approach individuals for consultation, as this undermines the role of the nominated representative corporations (Section 6.5.2.1). Woodside's approach to providing individual Traditional Custodians the opportunity to self-identify and consult for an Environment Plan is as follows:

- Woodside applies the principles of self-determination when consulting with Traditional Custodians by consulting through the Traditional Owners' authorised representative entities.
- Recognising the function of nominated representative corporations (such as PBCs) and Native Title Representative Bodies to represent communal interests and manage cultural values, Woodside requests that the information provided to representative entities is provided to their members but Woodside recognises the process is voluntary and Woodside cannot compel them to do so nor seek to audit the representative entities for compliance with any request.
- Representative entities cannot provide membership details to Woodside due to individual confidentiality requirements.
- Woodside requests advice as to who else Woodside should be consulting but recognises the process is voluntary and cannot compel nominated representative corporations to provide this information.
- Modern Indigenous engagement practises rely on the building and maintaining of respectful relationships. Most nominated representative corporations to date have requested the building of that relationship, where one is not already in place.
- While Woodside has, in some cases, approached individual directors and elders outside of this process due to requirements imposed in Environment Plan consultation, this approach is considered inappropriate by modern Indigenous engagement standards, fundamentally undermining the authority of the authorised representative entity and can be detrimental to the relationship.

For this proposed activity, Woodside requested nominated representative corporations (including PBCs) and Native Title Representative Bodies to identify any potential individual relevant persons for consultation, and to distribute consultation materials to their member base. However, Woodside recognises the process is voluntary and it cannot compel them to do so nor seek to audit the representative entities for compliance with any request. Woodside has not been directed to engage individual Traditional Custodians by nominated representative corporations for this proposed activity. Woodside has nevertheless provided reasonable opportunity for individual Traditional Custodians to engage in consultation through appropriate and adapted consultation methods.

6.5.2.2.1 Sufficient Information

Woodside recognises that the information sufficient to allow a person or organisation to make an informed assessment of the possible consequences of the proposed activity on their functions, interests or activities may vary and also may depend on the degree to which a relevant person is potentially affected.

Woodside produces a Consultation Information Sheet for each Environment Plan which is provided to relevant persons and organisations to provide the opportunity for feedback on the activity (Section 6.4.1). In response to Traditional Custodians' feedback, Woodside has tailored effective consultation

methods for its activities, specifically designed for Traditional Custodians, so that information is provided in a form that is readily accessible and appropriate. The targeted Consultation Summary Sheet developed and reviewed by Indigenous representatives so that content is appropriate to the intended recipients, is then provided to relevant Traditional Custodian groups. Phone calls are made to provide context to the consultation.

Where face to face consultation meetings are requested, Woodside coordinates engagement at the Traditional Custodians' location of choice (where practicable) and with their nominated attendees. Key project personnel, environmental and First Nations relations experts are typically present to enable effective communication and prompt response to questions. Materials for these sessions incorporate visual aids such as photos, maps and videos, and plain language suitable for people with a non-technical background.

Woodside has sought to provide sufficient information to individual members of nominated representative corporations (such as PBCs) by providing information to representative bodies and requesting dissemination with members. However, Woodside recognises consultation is voluntary and it cannot compel them to do so nor would it be appropriate to seek to audit the representative entities for compliance with any request.

6.5.2.3 Reasonable Period for Consultation

Woodside seeks to consult in order to support preparation of its Environment Plan. Woodside recognises that what constitutes a reasonable period for consultation should be considered on a case-by-case basis, with reference to the nature, scale and complexity of the activity (Section 6.4.2).

6.5.2.4 Discharge of Regulation 11A

Woodside's consideration and approach to discharging regulation 11A for all relevant persons is discussed in Section 6.4.3. In addition to this, Woodside has considered discharging of regulation 11A specific to First Nations based on the Tipakalippa Appeal.

In relation to Traditional Custodian relevant persons (and all relevant persons), Woodside has discharged its duty under regulation 11A. Woodside considers that consultation under regulation 11A is complete (Section 6.4.3).

6.6 Providing Feedback and Assessment of Merit of Objections or Claims

There are a number of ways in which feedback can be provided. Feedback can be provided through the Woodside feedback email or via the Woodside feedback toll free phone line as outlined in the Consultation Information Sheet and the Woodside website. Where appropriate, consultation may also be supported by phone calls or meetings. An environment plan feedback form is also available on Woodside's website enabling stakeholders to provide feedback on proposed activities, or to request additional information.

Woodside consults widely on its EPs and notes that feedback is received in various forms. Feedback that is considered inappropriate or that puts the environment, health, safety or wellbeing of Woodside employees or operations at risk will not be tolerated. Woodside respects people's rights to protest peacefully and lawfully but actions that put the environment, health, safety or wellbeing of Woodside employees or operations at risk go beyond those boundaries.

Woodside accepts feedback and engages in consultation in order to achieve the aims set out in Section 6.2. Woodside recognises that there are persons and organisations that take a view that Woodside's operations and/or growth projects should be stopped or at least delayed as far as possible. Whilst Woodside assesses the merits of objections or claims received, it acknowledges NOPSEMA's guidance in its brochure entitled Consultation on offshore petroleum environment plans information for the community, which states that relevant persons are free to respond on any matter and raise any concern, however this may not be able to be considered if it is outside the scope or

purpose of the environment plan and approval process, for example, statements of fundamental objection to offshore petroleum activities or information containing personal threats or profanities.

Feedback from relevant persons is reviewed and an assessment of the merits is made of information provided as well as objections or claims about the adverse impact of each activity to which the EP relates. This might, for instance, be done through a review of data and literature and for relevance to the nature and scale of the activity outlined in the EP. Consistent with the aim of consultation in Section 6.2, Woodside will consider information received when reviewing and designing measures to put in place to minimise harm to relevant persons and where reasonable or practical to further manage impacts and risks to ALARP and acceptable levels.

Woodside considers feedback during consultation from relevant persons and other persons Woodside chose to contact (see Section 6.3.4). This information is summarised in Appendix F, Table 1 and Table 2 of the EP and includes a statement of Woodside's response, or proposed response, if any, to each objection and claim.

In accordance with regulation 9(8) of the Environment Regulations, sensitive information (if any) in an EP, and the full text of any response by a relevant person to consultation under regulation 11A, must be contained in the sensitive information part of the plan and not anywhere else in the plan.

6.7 Ongoing Consultation

Consultation can continue to occur during the life of an EP, including after an EP has been accepted by NOPSEMA.

As per Woodside's ongoing consultation approach (refer to Section 8.6.3), feedback and comments received from relevant persons continue to be assessed and responded to, as required, throughout the life of an EP, including during its assessment and once accepted, in accordance with the intended outcome of consultation.

Should consultation feedback be received following the acceptance of an EP that identifies a measure or control that requires implementation or updates to meet the intended outcome of consultation, Woodside will apply its Management of Change and Review process as appropriate (see Section 8.7).

7 ENVIRONMENTAL IMPACT AND RISK ASSESSMENT, PERFORMANCE OUTCOMES, STANDARD AND MEASUREMENT CRITERIA

7.1 Overview

This section presents the impact and risk assessment, evaluation and EPOs, EPSs and MC for the Petroleum Activities Program, using the methodology described in Section 2.

7.2 Impact and Risk Analysis and Evaluation

As required by Regulations 13(5) and 13(6) of the Environment Regulations, the following analysis and evaluation demonstrates that the identified impacts and risks associated with the Petroleum Activities Program are reduced to ALARP, are of an acceptable level and consider all operations of the activity, including potential emergency conditions. The impact assessment for planned activities has been based on the size of the Operational Area.

The impacts and risks identified during the ENVID workshop (including decision type, current risk level, acceptability of impacts and risks, and tolls used to demonstrate acceptability and ALARP) have been divided into two broad categories, being:

- planned activities (routine and non-routine) that have the potential for inherent environmental impacts
- unplanned events (accidents, incidents or emergency situations) with an environmental consequence, termed 'risks'.

Within these categories, impact and risk assessment groupings are based on environmental aspects such as emissions and physical presence. In all cases, the worst credible consequence was assumed.

The ENVID (performed in accordance with the methodology described in Section 2) was conducted on 9 May 2022 and identified seven impacts and six risks associated with the Petroleum Activities Program. A summary of the ENVID is provided in Table 7-1.

The impact and risk analysis and evaluation for the Petroleum Activities Program indicate all current environmental risks and impacts associated with the individual activities are reduced to ALARP and are of an acceptable level, as discussed further in Sections 7.7 and 7.8.

7.2.1 Cumulative Impacts

The closest petroleum facilities are described in Section 5.6.6, with North Rankin Complex (Woodside) located 1 km northeast of the North Rankin-1 Operational Area and Angel Platform (Woodside) located 1 km northeast of the Angel-1 Operational Area.

Woodside has assessed the potential for cumulative impacts of the Petroleum Activities Program in relation to other relevant petroleum activities that could realistically result in overlapping temporal and spatial extents. Given the short duration of the Petroleum Activities Program and the limited spatial extent of impacts arising from planned activities, the potential for cumulative impacts is not considered credible.

Table 7-1: Environmental risk analysis and summary

Aspect	EP Section	Risk Rating				Acceptability of Impact/Risk
		Impact/Consequence	Potential Impact/Consequence Level	Likelihood	Current Risk Rating	
Planned Activities (Routine and Non-routine)						
Physical presence: interference with marine users	7.7.1	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Physical presence: disturbance to benthic habitat	7.7.2	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Routine acoustic emissions: vessels, helicopters and mechanical equipment operation	7.7.3	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Routine atmospheric emissions: fuel combustion	7.7.4	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Routine discharge: bilge water, grey water, sewage, putrescible wastes and deck drainage water	7.7.5	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Routine and non-routine discharges: Wellhead removal and recovery	7.7.6	E	Environment – Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes.	-	-	Broadly acceptable
Routine light emissions: external lighting on project vessels	7.7.7	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	-	-	Broadly acceptable
Unplanned Activities (Accidents, Incidents, Emergency Situations)						
Accidental hydrocarbon release: vessel collision	7.8.2	D	Environment – Minor, short-term impact (one to two years) on species, habitat (but not affecting ecosystems function), physical or biological attributes.	1	M	Acceptable

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Aspect	EP Section	Risk Rating				Acceptability of Impact/Risk
		Impact/Consequence	Potential Impact/Consequence Level	Likelihood	Current Risk Rating	
Unplanned discharge: deck spills	7.8.3	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	2	L	Broadly acceptable
Planned and Unplanned discharge: loss of solid hazardous and non-hazardous wastes (including dropped objects)	7.8.5	F	Environment – Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes.	2	L	Broadly acceptable
Physical presence: vessel collision with marine fauna	7.8.6	F	Environment – No lasting effect (less than one month). Localised impact not significant to environmental receptors.	1	L	Broadly acceptable
Physical presence: introduction and establishment of invasive marine species	7.8.7	D	Environment – Minor, short-term impact (one to two years) on species, habitat (but not affecting ecosystems function), physical or biological attributes.	0	L	Broadly acceptable

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7.3 Environmental Performance Outcomes, Standards and Measurement Criteria

Regulation 13(7) of the Environment Regulations requires that an EP includes EPOs, EPSs and MC that address legislative and other controls to manage the environmental risks of the activity to ALARP and acceptable levels.

EPOs, EPSs and MC for the Petroleum Activities Program have been identified to allow the measurement of Woodside’s environmental performance and the implementation of this EP to determine whether the EPOs and standards have been met.

The EPOs, EPSs and MC specified are consistent with legislative requirements and Woodside’s standards and procedures. They have been developed based on the Codes and Standards, Good Industry Practices and Professional Judgement outlined in Section 2.6.2 as part of the acceptability and ALARP justification process.

The EPOs, EPSs and MC are presented throughout this section and in Appendix D (Oil Spill Preparedness and Response Mitigation Assessment). A breach of these EPOs or standards constitutes a 'Recordable Incident' under the Environment Regulations (refer to Section 8.10.4.2).

7.4 Presentation

The environmental impact and risk analysis and evaluation (ALARP and acceptability), EPOs, EPSs and MC are presented in the following tabular form throughout this section. Italicised text in the following example denotes the purpose of each part of the table with reference to the relevant sections of the Environment Regulations and this EP.

Context														
<Description of the context for the impact/risk. Regulation 13(1), 13(2) and 13(3)>														
Description of the Activity – Regulation 13(1)				Description of the Environment – Regulation 13(2)(3)				Consultation – Regulation 11A						
Impacts/Risks Evaluation Summary – Summary of ENVID outcomes														
Source of Impact or Risk <i>Regulation 13(1)</i>	Environmental Value Potentially Impacted <i>Regulations 13(2)(3)</i>							Evaluation <i>Section 2.8 and Section 2.9</i>						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl. Odour)	Ecosystems/Habitat	Species	Socio-economic	Decision Type	Impact/Consequence	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcome
Summary of source of risk or impact														
Description of Source of Impact/Risk														
Description of the identified impact or risk, including sources or threats that may lead to the risk or identified event. <i>Regulation 13(1).</i>														
Impact/Risk Assessment														
Discussion and assessment of the potential impacts or risks to the identified environment values(s). <i>Regulation 13(5)(6).</i> Potential impacts/risks to environmental values have been assigned and discussed based on Woodside’s Environmental Consequence Definitions for Use in Environmental Risk Assessments (Table 2-3).														

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) ¹⁸	Benefit in Impact / Risk Reduction ¹⁹	Proportionality	Control Adopted
ALARP Tool Used – Section 2.7.1 and Section 2.7.2				
Summary of control considered to ensure the impacts and risks are continuously reduced to ALARP Regulation 13(5)(c)	Technical or logistical feasibility of the control. Cost or sacrifice required to implement the control (qualitative measure).	Qualitative commentary of impact or risk that could be averted or environmental benefit gained if the cost or sacrifice is made and the control is adopted.	Proportionality of cost or sacrifice versus environmental benefit. If proportionate (benefits outweigh costs), the control will be adopted. If disproportionate (costs outweigh benefits), the control will not be adopted.	If control is adopted. Reference to Control # provided.
ALARP Statement: Made based on the environmental risk assessment outcomes, use of the relevant tools appropriate to the decision type (Section 2.7) and a proportionality assessment. Regulation 10A(b).				

Demonstration of Acceptability
Acceptability Statement: Made based on applying the process described in Section 2.7.2, taking into account internal and external expectations, risk to environmental thresholds and use of environment decision principles. Regulation 10A(c).

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO#</p> <p>S: Specific performance which addresses the legislative and other controls that manage the activity and against which performance by Woodside in protecting the environment is measured.</p> <p>M: Performance against the outcome is measured by measuring implementation of the controls via the MC.</p> <p>A: Achievability/feasibility of the outcome demonstrated via discussion of feasibility of controls in ALARP demonstration. Controls are directly linked to the outcome.</p> <p>R: The outcome is relevant to the source of risk and the potentially impacted environmental value.</p> <p>T: The outcome states the timeframe during which the outcome will apply or by which it will be achieved.</p>	<p>C#</p> <p>Identified control adopted to ensure the impacts and risks are continuously reduced to ALARP.</p> <p>Regulation 13(5)(c)</p>	<p>PS#</p> <p>Statement of the performance required of a control measure.</p> <p>Regulation 13(7)(a)</p>	<p>MC#</p> <p>Measurement criteria for determining whether the outcomes and standards have been met.</p> <p>Regulation 13(7) (c)</p>

¹⁸ Qualitative measure.

¹⁹ Measured in terms of reduction of likelihood, consequence and current risk rating.

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7.5 Indirect Impacts Outside of the Operational Areas

The potential indirect environmental impacts and risks evaluated for the Petroleum Activities Program are those associated with onshore waste disposal from waste generated in the Operational Areas. With consideration of the nature and scale of the potential indirect environmental impacts and risks, and the existing regulatory frameworks to manage them, relevant EPS, MC and EPOs demonstrating these indirect impacts/risks are managed to ALARP and acceptable levels are outlined in Section 7.8.5.

7.6 Environmental Risks/Impacts Deemed Not Credible or Outside the Scope of this EP

The ENVID identified sources of environmental risk and impact that were assessed as not being applicable (not credible) within the EMBA and, therefore, were determined to not form part of this EP (refer to Section 2.5). These are described in the next subsections for information only.

7.6.1 Loss of Well Integrity

There is no credible hydrocarbon release risk from the reservoirs as the wellheads will only be removed once the wells have been permanently abandoned and their abandonment status has been accepted by NOPSEMA (or a prior Designated Authority) (Section 4.6).

7.6.2 Impacts and Risks Covered under existing EPs

During the Petroleum Activities Program there is potential for activities to occur adjacent to or near other live subsea infrastructure within permits as summarised in Table 4-7. Risks associated with this include damage to live infrastructure from dropped objects or vessel collision with other project vessels or facilities. Both of these scenarios could result in a loss of hydrocarbons to the environment. The worst-case credible hydrocarbon release scenarios from these risks have been defined and assessed in the relevant EPs in Table 4-7. The EPs provide a description and assessment of impacts and risks, as well as management controls and response capabilities.

The spill scenarios are, therefore, not addressed further in this EP. Additional controls for prevention of dropped objects on live infrastructure or vessel collisions are outlined in Section 7.8.4 and Section 7.8.2, respectively.

7.7 Planned Activities (Routine and Non-routine)

7.7.1 Physical Presence: Interactions with Marine Users and Values

Context														
Project Vessels – Section 4.8				Socio-Economic Environment – Section 5.6				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Interactions with other marine users – proximity of project vessels interfering with or displacing third-party vessels							X	A	F	-	-	GP	Broadly Acceptable	EPO 1 EPO 2
Presence of well infrastructure on the seabed prior to removal							X	A	F	-	-			
Description of Source of Impact														
<p>Presence of Vessels and Subsea Infrastructure</p> <p>The Petroleum Activities Program will be conducted using an offshore support vessel; a general support vessel may be used to transport equipment and materials between the Operational Areas and port or to perform standby duties within the Operational Areas. The presence of these vessels presents an opportunity for interaction with third-party marine users.</p> <p>A temporary 500 m radius exclusion zone will be maintained around the project vessels during operations (expected duration of three days per wellhead). Marine users are requested to avoid this area during the activity to ensure the safety of the project vessel(s) and third-party vessels.</p> <p>The wellheads will remain present on the seabed temporarily until recovery, for up to five years post-EP acceptance. The wellheads extend between 2.3 and 4.5m above the seabed and will present an ongoing potential for interactions with commercial fisheries that operate trawl equipment, until wellhead recovery.</p>														

Impact Assessment
Potential Impacts to Environmental Values
<p>Commercial Fishing</p> <p>Although a number of Commonwealth and State-managed commercial fisheries overlap the Operational Areas, only four State managed fisheries have reported recent fishing effort in the vicinity of at least one Operational Area: the Pilbara Trap Fishery, Pilbara Line Fishery, Pilbara Fish Trawl Fishery and the Mackerel Managed Fishery (Area 2). This is based on overlap with the 10 nm and 60 nm grid Fish Cube data available from DPIRD (2022).</p> <p>For the Mackerel Managed Fishery, interaction between project vessels and fishing vessels is only considered credible for one Operational Area: Lady Nora-2 (Table 5-22). Interaction between project vessels and fishing vessels associated with the Pilbara Line and Trap Fisheries could occur across all 36 Operational Areas. For the Pilbara Trawl Fishery, interaction is only considered credible in eight Operational Areas: Angel-1, Angel-2, Angel-3, Cossack-1, Cossack-6, Wanaea-4, Walcott-1 and Madeleine-1.</p>

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Over the last five years, a maximum of five vessels (per fishery) have been reported fishing in any of the overlapping 10 nm or 60 nm grid squares in any one year. Should commercial fisheries be operating within any of the Operational Areas during wellhead removal activities, vessels may be displaced from the 500 m exclusion zone around the project vessel. Since wellhead inspection and removal activities result in relatively small operational areas, the area from which fishing vessels may be displaced at any one time is negligible when compared the area available to fish, and in which fishing effort has been recorded in the last five years.

Further, since activities within any one Operational Area are expected to last three days (up to a maximum of ten days), displacement from any one area will be temporary. As a result, any impacts of the Petroleum Activities Program on commercial fisheries will be limited to short term (ten days) and localised (within 500 m of the project vessels) displacement, and impacts are considered negligible and with no lasting effect.

The presence of wellheads on seabed may result in temporary displacement of trawl fishers within the region for up to five years (of the EP acceptance) until the infrastructure for eight wells (within the area that is currently open to trawling; Schedule 3, Zone 2) is removed. The impacts will be negligible due to low fishing effort in the area.

Recreational Fishing and Tourism Operations

Occasional recreational fishing occurs at Glomar Shoals (overlaps Angel-3) and Rankin Bank (5 km north of Lady Nora-1). Recreational fishers may occur in the Operational Areas, though frequency and intensity of activity is expected to be low. In the event recreational fishing effort occurs within an Operational Area during wellhead removal activities, displacement from the 500 m exclusion zone around each project vessels may occur. Displacement from any one location will be temporary (expected three days within each Operational Area) and, therefore, impacts are expected to be negligible with no lasting effect.

Commercial Shipping

One shipping fairway intersects with the Goodwyn-4 and Goodwyn-6 Operational Areas; other areas of high vessel traffic overlapping the Operational Areas are likely associated with Woodside’s activities rather than commercial shipping. Commercial vessels using the shipping fairway may be displaced from the 500 m exclusion zone around project vessels during wellhead removal activities in the Goodwyn-4 and Goodwyn-6 Operational Areas. Since the duration of the activities are expected to be three days per wellhead, the maximum duration where commercial shipping vessels may be displaced is not expected to exceed 10 days (except in an unlikely worst-case scenario). Additionally, vessels will operate with AIS and have trained marine crews during 24 hour operations who will keep watch and warn approaching vessels. Considering the highly localised and temporary nature of the impact, no lasting effect on commercial shipping activities is anticipated. AMSA was consulted during the development of this EP and provided feedback including a request to consider having a support vessel on site during activities located within the shipping fairway, this has been assessed as a control in the ALARP assessment below.

Defence Activities

Five Operational Areas overlap a defence training area (Section 5.6.7). The Petroleum Activities Program may interfere with defence training exercises. However, the total duration of activities within the defence training area is expected to be 15 days. Notifications will be issued in advance of activities commencing within each Operational Area, and no concerns were raised during stakeholder consultation (Section 6). As a result, any impacts to defence activities will be negligible with no lasting effect.

Oil and Gas Activities

Four petroleum facilities are located within 6.5 km of the Operational Areas, all operated by Woodside. There is potential for the Petroleum Activities Program to result in localised and temporary displacement of vessels associated with these oil and gas platforms. Since displacement from any one area will be limited to ten days, any impacts are considered negligible with no lasting effect.

Summary of Potential Impacts to Environmental Values(s)

Given the adopted controls, it is considered that the physical presence of the project vessels and wellheads will not result in a potential impact greater than localised, temporary displacement of other marine users, such as shipping and commercial fisheries, with no lasting effect.

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
None identified.				

¹ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
Good Practice				
Notify Australian Hydrographic Office (AHO) of activities and movements no less than four weeks before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Notification to AHO will enable them to generate navigation warnings (Maritime Safety Information Notifications (MSIN)) and Notice to Mariners (NTM) [including AUSCOAST warnings where relevant)).	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.1
Wellheads to remain on AHO navigation charts until removal.	F: Yes CS: Minimal cost. Standard practice.	The presence of these wellheads is currently marked on AHO navigation charts. Their presence will remain on these charts until removal activities are completed, giving fishers and other marine users sufficient information to plan activities around the infrastructure until removal.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.2
Notify AMSA Joint Rescue Coordination Centre (JRCC) of activities and movements 24 to 48 hours before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.3
Notify relevant stakeholders of activities prior to the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.4
Undertake consultation with relevant stakeholders for activities and	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine	Benefits outweigh cost/sacrifice.	Yes C 1.5

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
movements that commence more than a year after EP acceptance.		users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Control is also standard practice.	
Where activities overlap a defence area, DoD will be notified of activity start date no less than five weeks before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.6
Project vessels to operate Automatic Identification System (AIS).	F: Yes. CS: Minimal cost. Standard practice.	Use of AIS on project vessels, and lights, will reduce the likelihood of an interaction with a third-party vessel.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 2.1
Support vessel on standby during activities in shipping lanes	F: Yes CS: Moderate to high cost	Use of a support vessel allows for dedicated watch vessel to warn vessels using shipping lane.	Disproportionate. The cost/sacrifice outweighs the benefit gained. Vessels used for the petroleum activity will have dedicated marine bridge crew, which are separate from operations crew. The marine bridge crew will only be responsible for the navigation and management of the ship including while operating in the shipping fairway. A second vessel is not expected to be more effective in managing the vessel in the shipping fairway than the marine	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
			bridge crew that will already be in the field.	
Professional Judgement – Eliminate				
Remove well infrastructure above the mudline.	F: Yes. CS: Moderate cost.	Removal of infrastructure eliminates any potential interactions with commercial fishers.	Benefits outweigh cost/sacrifice.	Yes C 2.2
Remove wells infrastructure within one year following acceptance of EP.	F: Yes. CS: Moderate to high cost.	Continued presence of wellhead for up to five years (of the EP acceptance) has a negligible impact on other marine users given the low fishing effort in vicinity of the wellheads in active trawl zones and that wellhead presence for up to five years will not affect the success of future removal.	Disproportionate. The cost/sacrifice outweighs the benefit gained.	No
Limit activities to avoid peak shipping and commercial fishing activities.	F: No. Shipping occurs year-round. The potential for displacement of shipping from the Operational Areas may occur, given the moderate shipping density adjacent to the Operational Areas. The potential for displacement of commercial fishing activities is very unlikely as there is no recent fishing effort recorded within the Operational Areas (refer to Section 5.6.2). In the very unlikely event commercial fishing activities are present, simultaneous operations with fishing seasons cannot be eliminated as fishing activities may occur throughout the year,	Not considered – control not feasible.	Not considered – control not feasible.	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
	and exact details on future fishing activities are not known. CS: Not considered – control not feasible.			
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels on other marine users, such as shipping and commercial fisheries. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The impact assessment has determined that, given the adopted controls, physical presence of the project vessels is unlikely to result in potential impact greater than localised and short-term concern to other marine users, such as shipping, defence and commercial fisheries. Further opportunities to reduce the impacts and risks have been investigated above.</p> <p>The adopted controls are considered good oil-field practice and industry best practice and meet expectations of AMSA and AHO provided during consultation with stakeholders. The potential impacts and risks are considered broadly acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of the physical presence of the project vessels to a level that is broadly acceptable.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcome	Controls	Standards	Measurement Criteria
EPO 1 Marine users are aware of the Petroleum Activities Program.	C 1.1 Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	PS 1.1 Notification to AHO four weeks prior to scheduled commencement to allow for the generation of navigation warnings (MSIN and NTM [including AUSCOAST warnings where relevant]).	MC 1.1.1 Consultation records demonstrate AHO has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcome	Controls	Standards	Measurement Criteria
	C 1.2 Wellheads will continue to be marked on AHO navigation charts until removal.	PS 1.2 Notification to AHO after wellhead removal.	MC 1.2.1 Consultation records demonstrate that AHO have been notified of wellhead removal.
	C 1.3 Notify AMSA JRCC of activities and movements 24 to 48 hours before the scheduled activity commencement date.	PS 1.3 Notification to AMSA JRCC 24 to 48 hours prior to the scheduled commencement date.	MC 1.3.1 Consultation records demonstrate AMSA JRCC has been notified prior to commencement of the Petroleum Activities Program within the required timeframes.
	C 1.4 Notify stakeholders of activities prior to the scheduled activity commencement date.	PS 1.4 AFMA, DAFF – Fisheries, DPIRD, CFA, WAFIC, Telstra (North Rankin-3 Only), Recfishwest, Searcher Seismic, and Shire of Ashburton notified prior to commencement and upon completion of activities.	MC 1.4.1 Consultation records demonstrate that AFMA, DAFF – Fisheries, DPIRD, CFA, WAFIC, Telstra (North Rankin 3 only), Recfishwest, Searcher Seismic, and Shire of Ashburton, have been notified prior to commencement and upon completion of activities.
	C 1.5 Undertake consultation with relevant persons for activities and movements that commence more than a year after EP acceptance.	PS 1.5 Relevant stakeholders will be notified no less than four working weeks prior to scheduled activity commencement date (Appendix F).	MC 1.5.1 Consultation records demonstrate relevant persons have been consulted.
	C 1.6 Where activities overlap a defence area, DoD will be notified of activity start date no less than five weeks before the scheduled activity commencement date.	PS 1.6 Notification to DoD five weeks prior to the scheduled commencement date for activities that overlap a defence area.	MC 1.6.1 Records demonstrate that DoD has been notified prior to commencement of the Petroleum Activities Program, for activities that overlap a defence area, within the required timeframes.
EPO 2 Prevent adverse interactions with other marine users during the Petroleum Activities Program or from continued presence of well infrastructure.	C 2.1 Project vessels to operate AIS.	PS 2.1 Project vessels operating AIS.	MC 2.1.1 Records demonstrate project vessels are operating AIS.
	C 2.2 Remove well infrastructure above the mudline once wells are accepted as permanently abandoned.	PS 2.2 Well infrastructure above the mudline will be removed once wells are accepted as permanently abandoned.	MC 2.2.1 As left survey demonstrates well infrastructure above the mudline has been removed for wells accepted as permanently abandoned.

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7.7.2 Physical Presence: Seabed Disturbance

Context																
Activity Components – Section 4			Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6									
Impact Evaluation Summary																
Source of Impact	Environmental Value Potentially Impacted						Evaluation									
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes		
Disturbance to seabed from subsea cleaning, sediment removal and other preparation for removal of well infrastructure activities or IMR activities		X	X		X		X	A	F	-	-	GP	Broadly Acceptable	EPO 3		
Disturbance to seabed from wellhead removal		X	X		X		X	A	F	-	-					
Disturbance to seabed from placement and recovery of transponders and clump weights/stands on seabed			X		X		X	A	F	-	-					
Description of Source of Impact																
<p>Wellhead Removal</p> <p>Localised seabed disturbance will occur when cutting and removing the well infrastructure. Given cut is planned to be made from within the well below the mudline, disturbance is expected to be minimal. AWJ cutting may result in localised sediment relocation and temporary increase in turbidity. Approximately 4 t of grit and 250 L of flocculant per AWJ cut will be released, the majority below the mudline; however, a small proportion may accumulate on the seafloor. Removal of the TGB and PGB and contingency method of a diamond wire saw to create an external cut may require localised sediment relocation, as described below.</p> <p>Subsea Cleaning and Sediment Relocation</p> <p>Subsea cleaning, IMR and preparation activities include removing marine growth from the wellhead and relocating sediment that has built up to gain access for removal activities. This may be performed in a variety of ways. Those that have potential to impact the seabed include use of high-pressure water and brushes on ROVs.</p> <p>Relocating sediment involves using an ROV-mounted suction pump and dredging unit to remove sediment that has built up around the subsea infrastructure. The sediment would be relocated nearby within the Operational Areas and will result in localised disturbance from where it has been removed and at the site to which it is relocated.</p> <p>Set Down of Wellheads</p> <p>Wellheads may be set down on the seabed in the immediate vicinity of removal for a period to enable safe rigging prior to recovery. Placement of the wellhead on the seabed will result in temporary seabed disturbance and suspension of sediment causing increased turbidity.</p> <p>ROV and Transponders</p> <p>Use of the ROV during the Petroleum Activities Program may result in highly localised temporary seabed disturbance and suspension of sediment causing increased turbidity as a result of working close to, or occasionally on, the seabed. ROV used close to or on the seabed is limited to that required for effective and safe subsea activities. The footprint of a typical ROV is approximately 2.5 m by 1.7 m.</p>																

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Transponders are deployed in an array on the seafloor using concrete clump weights or transponder stands. These are then retrieved by ROV at the end of the activity. Typical footprint for a transponder is less than 1 m².

Historical Drilling Discharges

Historical discharge impacts associated with drilling activities (i.e., cuttings) could be present and disturb benthic habitats in the immediate vicinity of the wellhead (~250m radius around wellhead). 31 of the wells were drilled only with high viscosity pre-hydrated gel sweeps and water-based muds (WBM). 5 of the wells had bottom hole sections drilled with NWBM, with the rest of the well drilled with high viscosity pre-hydrated gel sweeps and WBM. This could have resulted in impacts to marine sediment and water quality in the surrounding water column immediately following discharge at the time of drilling.

Impact Assessment

Potential Impacts to Environmental Values

Benthic Habitats

Direct physical disturbance to benthic environment (including fauna), indirect disturbance to benthic habitats and fauna by sedimentation and increase in turbidity to water column are considered potential impacts to benthic habitats.

The Operational Areas are expected to consist primarily of sandy substrate and soft sediments (see Section 5.1.4). Broad-scale bathymetric surveys around the Operational Areas show the seabed is relatively flat and featureless. Communities in the area are expected to largely consist of low-density sessile benthic biota and mobile epifauna.

There are two KEFs that overlap with at least one Operational Area: Ancient Coastline and Glomar Shoals (Figure 5-12). Fifteen wellheads overlap the Ancient Coastline KEF (Dockrell-1, Goodwyn-1, Goodwyn-2, Goodwyn-3, Goodwyn-4, Goodwyn-5, Goodwyn-6, North Rankin-1, North Rankin-2, North Rankin-3, North Rankin-4, North Rankin-5, North Rankin-6, Lambert-1 and Balnaves Deep-1). Seabed surveys in the vicinity of these wellheads have indicated sediments are soft, fine to coarse sands with some gravel, typical of the wider NWMR. Angel-3 is the only wellhead that overlaps the Glomar Shoals KEF. Glomar Shoals is a submerged feature at depths of 33 to 77 m (Falkner *et al.*, 2009). Approximately 0.9% of the Glomar Shoals KEF overlaps the Angel-3 Operational Area (in the north-western section of the KEF), with the Glomar Shoals feature located more than 15 km from the Angel-3 Operational Area. Given the Angel-3 wellhead is located at a depth of 69 m (where benthic cover is less than 2%), and is located 15 km from hard coral communities associated with the Glomar feature itself, impacts to values of this KEF are not expected.

Activities will be localised in nature and of short duration. Physical impacts from the Petroleum Activities Program are expected to be for the most part confined to sediment-burrowing infauna and surface epifauna invertebrates, particularly filter-feeders, inhabiting the seabed directly on and around the wellheads. Removal of the wellheads will disturb these artificial habitats and associated fauna, with impacts expected to be localised and restricted to the footprint of the wellhead and small areas around it. Due to the widespread representation of the infauna communities within the Operational Areas, impacts are expected to be negligible.

Activities, including AWJ cutting, ROV operation nearby, and placement of wellheads on the seabed prior to recovery, may lead to elevated turbidity resulting in suspension and relocation of drill cuttings discharged during the drilling activity.

Historical Drilling Discharges

Impacts to benthic habitats from previous drilling activities (i.e. cuttings) are expected to be localised and negligible, given the low sensitivity of the seabed in the area and time since drilling. For most wells it is expected that discharged drill cuttings from top hole sections drilled without a marine riser would be deposited immediately around the wellhead in cutting piles, whilst deeper well sections would have been drilled with a marine riser in place, allowing for cuttings to be recirculated to the drilling rig where they would have been treated to remove residual fluids. Drill cuttings discharged after being circulated back to the rig would have dispersed in a thin layer over an area (~250m) directly down current of the well as they are discharged just below the surface and fall through the water column to the seabed (IOGP, 2016., Neff, 2005). Thirty-one of the wells were drilled exclusively with pre hydrated sweeps or WBM, whilst five of the wells had bottom hole sections drilled with NWBM (Section 4.6).

WBM typically comprises 15-20% of the total volume of cuttings and their discharge is considered an acceptable practice due to their low toxicity, dispersion characteristics and the expected rapid biodegradation (IOGP, 2016). Given the time that has passed since the activities occurred, a minimum of 12 years since the last well was drilled (Balnaves Deep-1), and the low toxicity and biodegradation rates of WBM, it is expected that there has been sufficient time for any impacted benthic habitats to recover and stabilise. These historic impacts from WBM discharges are considered negligible and are expected to be localised with no lasting effects and full recovery of environmental receptors. NWBM were used to drill some bottom hole sections of Lambert-5ST1, Balnaves Deep-1, Wanaea-4, Grange-1-WA, and Julimar South-East-1 wells. Typical NWBM constituents are provided in Table 4-6. NWBM are only used when drilling through bottom hole sections of wells, where required for technically difficult drilling operations (IOGP, 2016). These cuttings are circulated back to the drill rig by a marine riser and processed through onboard equipment to remove majority of the NWBM residue. The cuttings are then discharged to the marine environment if they meet the specification required by the environmental approvals or conditions of the specific campaign.

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The main component of NWBM are base oils (Table 4-4) which are considered Group III fluids, meaning they have a low to negligible aromatic content and are considered less toxic and more biodegradable than diesel and mineral oil generated base fluids (IOGP, 2016). When discharged, cuttings with residual NWBM compounds are comprised of both organic soluble, and inorganic non-soluble components. The soluble organic components are expected to rapidly disperse and biodegrade, a small amount of residual inorganic particles would settle in the sediments, whilst most remaining base oil would be expected to float to the surface and evaporate. The residual particles can cause physical and chemical composition of sediments to change, impacting benthic fauna. It is expected that these impacts would only be temporary with ecological recovery well advanced within a year and full recovery after this time, driven by natural deposition of sediments and transport of sediments (IOGP, 2016). These impacts are considered negligible and are expected to be localised with no lasting effects and full recovery of environmental receptors.

Suspension of sediments due to increased turbidity can result in the clogging of respiratory and feeding parts of filter-feeding organisms. However, elevated turbidity would only be expected to be very localised and for a short duration with no lasting effect and, therefore, will not have any significant impact to environment receptors.

Cultural Heritage

As described in Section 5.6.1 the activity occurs on the Ancient Landscape and therefore, seabed disturbance within each Operational Area may directly disturb a very small, localised area of the key ecological feature (KEF) and there is the potential that Indigenous Cultural features may exist. These may potentially be disturbed from removal of infrastructure and placement of supporting equipment on the seabed. While no cultural features have been identified in the Operational Areas, further archaeological studies will be undertaken prior to the activity commencing to understand any potential cultural features.

Summary of Potential Impacts to Environmental Values(s)

Given the adopted controls, seabed disturbance from the Petroleum Activities Program will not result in a potential impact greater than a temporary impact to benthic communities, with no lasting effect.

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
None identified.				
Good Practice				
Monitoring and/or remediation to make good any damage to the seabed or subsoil and provide for conservation and protection of the natural resources in the area of the wellheads	F: Yes. CS: Moderate.	Impacts to the seabed, sediment or benthic habitats from removal activities may occur from increased turbidity and resuspension of drill cuttings. Such impacts are expected to be highly localised around the well location and limited to a small number of benthic invertebrates, fish and plankton. There is limited environmental benefit (information) gained monitoring sediment and settlement of marine organisms around the wellhead	Cost of the control is disproportionate to the benefit that may be gained from it given wellheads will be removed and impacts to the seabed have been assessed as negligible.	No
Review of existing survey data by a suitably qualified maritime archaeologist to inform areas for laydown of equipment to avoid or where not possible, minimise physical impacts to cultural	F: Yes. CS: Minimal costs associated with review of data and avoidance or minimisation options.	Review of data by suitably qualified maritime archaeologist will inform potential exclusion or avoidance areas for seabed disturbance. Implementing this process will protect and minimise any physical impacts to underwater cultural heritage. Additionally,	Benefits outweigh cost/sacrifice.	Yes C 3.1

²¹ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
heritage areas or prospective areas.		this process is not inconsistent with the draft guidelines for working in the near and offshore environment to protect Underwater Cultural Heritage (DCCEEW, 2023).		
Unexpected finds of potential Underwater Cultural Heritage sites/features, including First Nations UCH are managed in accordance with an Unexpected Finds Procedure set out in Section 8.4.	F: Yes. CS: Cost of implementation	Allows management of Unexpected Finds in accordance with legislative requirements, (including <i>Underwater Cultural Heritage Guidance for Offshore Developments</i> and the <i>DRAFT Guidelines to Protect Underwater Cultural Heritage</i> under the <i>UCH Act</i> , expert advice and community expectations.	Benefits outweigh cost/sacrifice.	Yes C 3.2
Report any potential underwater cultural heritage finds to relevant stakeholders and authorities in accordance with the Unexpected Finds Procedure, <i>Underwater Cultural Heritage Act 2018</i> and the <i>ATSIHP Act</i>	F: Yes. CS: Minimal costs associated with reporting process.	Meets legislative requirements and community expectations.	Benefit outweighs cost/sacrifice.	Yes C 3.3
Relevant vessel crew and ROV operators will be advised in an induction of the potential to encounter UCH and requirement to follow the Unexpected Finds Procedure	F: Yes. CS: Minimal cost.	Ensures workforce are suitably aware of legal and process requirements for managing cultural features and heritage values.	Benefits outweigh cost/sacrifice.	Yes C 3.4

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Professional Judgement – Eliminate				
Remove drill cuttings (wells drilled using NWBM) from surrounding seafloor	<p>F: No</p> <p>Drill cuttings with NWBM would only be disposed of from the drill rig if oil-on-cuttings limits could be achieved, or disposed onshore if not.</p> <p>As such, the drill cuttings will not be located around the wellheads and therefore it would not be possible to locate and remove these drill cuttings.</p> <p>CS: Moderate to high cost.</p>	N/A – not feasible	N/A – not feasible	No
Remove wells infrastructure within one year following acceptance of EP.	<p>F: Yes.</p> <p>CS: Moderate to high cost.</p>	Continued presence of wellhead for up to five years has no increased negative impact on benthic habitats and will not affect the success of future removal. Corrosion, which is expected to be over long timeframes (hundreds of years), could result in the release of trace amounts of metals (such as iron and manganese) to the water column and surrounding sediments. Iron, the main constituent (around 98%) of the infrastructure, is not considered a significant contaminant in the marine environment (OSPAR PLONOR), is only toxic to marine organisms at extremely high concentrations (Grimwood and Dixon, 1997), and is an abundant element in marine sedimentary systems (Taylor <i>et al.</i> , 2011). Given this and the short additional duration the wellhead will be left in-situ, there will be no additional impacts to benthic habitats and no impacts would occur to any protected species.	Disproportionate . The cost/sacrifice outweighs the benefit gained.	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Do not use ROV close to, or on, the seabed.	F: No. The use of ROVs (including work close to or occasionally landed on the seabed) is critical to conducting the activities. CS: Not assessed, control not feasible.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>Relevant tools appropriate to the decision type (in other words, Decision Type A) have not identified any appropriate controls to manage the impact of seabed disturbance. As no reasonable additional or alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.</p> <p>No reasonable additional/alternative controls were identified that would further reduce the impacts without significantly disproportionate sacrifice.</p>				
Demonstration of Acceptability				
<p>Acceptability Statement</p> <p>The impact assessment has determined disturbance to the seabed will result in negligible impact to benthic communities, with no lasting effect. Further opportunities to reduce the impact have been investigated above. WAM provided feedback during consultation in relation to potential impacts to underwater cultural heritage. Woodside has addressed this feedback in Appendix F and adopted relevant controls below.</p> <p>The adopted controls are considered industry best practice and meet the requirements of Woodside’s relevant systems and procedures. The potential impacts are considered broadly acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts of disturbance to seabed to a level that is broadly acceptable.</p> <p>In the context of Section 270(3)(e) and (f) of the OPGGS Act, impacts to benthic habitats are of an acceptable level given:</p> <ul style="list-style-type: none"> principles of ESD have been considered during the assessment of decommissioning options (Section 3) and no significant adverse impacts will occur to any natural resource impacts and risks to natural resources or from damage to the seabed or subsoil are demonstrated to be reduced to ALARP international and domestic requirements that apply to the activity will be complied with 				

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 3</p> <p>No adverse impact to Underwater Cultural Heritage²² without a permit²³.</p>	<p>C 3.1</p> <p>Review of existing survey data by a suitably qualified maritime archaeologist to inform areas for laydown and/or installation of equipment to avoid or where not possible, minimise physical impacts to cultural heritage areas or prospective areas.</p>	<p>PS 3.1</p> <p>Existing survey data reviewed by a suitably qualified maritime archaeologist to inform areas for laydown and/or installation of equipment.</p>	<p>MC 3.1</p> <p>Records demonstrate review of existing survey data completed prior to laydown and/or installation of equipment.</p>
	<p>C 3.2</p> <p>Unexpected finds of potential Underwater Cultural Heritage sites / features, including First Nations UCH are managed in accordance with an Unexpected Finds Procedure set out in Section 8.4.</p>	<p>PS 3.2</p> <p>In the event that an Underwater Cultural Heritage site or feature is identified, implement an Unexpected Finds Procedure set out in Section 7.6.</p>	<p>MC 3.2</p> <p>No non-compliance with the Unexpected Finds Procedure.</p>
	<p>C 3.3</p> <p>Report any potential UCH finds to relevant stakeholders and authorities in accordance with the Unexpected Finds Procedure, <i>Underwater Cultural Heritage Act 2018</i> and the ATSIHP Act.</p>	<p>PS 3.3</p> <p>Report any finds of potential UCH in accordance with the Unexpected Finds Procedure (Section 7.6) including to the Australasian Underwater Cultural Heritage Database.</p>	<p>MC 3.3</p> <p>Records of potential UCH finds reported to relevant authorities and stakeholders.</p>
	<p>C 3.4</p> <p>Relevant vessel crew and ROV operators will be advised in an induction of the potential to encounter UCH, and of their requirement to follow the Unexpected Finds Procedure (C 3.2).</p>	<p>PS 3.4</p> <p>Relevant vessel crew (including ROV operators) are made aware of the requirements of the Unexpected Finds Procedure through an induction.</p>	<p>MC 3.4</p> <p>Records demonstrate vessel crew are made aware of potential to encounter UCH.</p>

²² Underwater Cultural Heritage is defined as any trace of human existence that has a cultural, historical or archaeological character and is located under water, in accordance with the UCH Act

²³ Permit for Entry into a Protected Zone or to Impact Underwater Cultural Heritage would be acquired under the UCH Act.

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7.7.3 Routine Acoustic Emissions: Vessels, Helicopters and Mechanical Equipment Operation

Context														
Project Vessels – Section 4.8 Helicopters – Section 4.10				Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Generation of noise from project vessels and helicopters during normal operations						X	X	A	F	-	-	LCS	Broadly acceptable	EPO 4
Generation of noise from cutting equipment						X	X	A	F	-	-	LCS		
Description of Source of Impact														
<p>During the Petroleum Activities Program, both atmospheric and underwater noise will be generated from the project vessels, helicopters and wellhead cutting. Project vessels will be present for up to ten days per wellhead; helicopter operation will occur intermittently within the ten-day duration.</p> <p>Project Vessels</p> <p>Project vessels will generate noise, due to the operation of thruster engines, propeller cavitation, on-board machinery and such. These noises will contribute to and have the potential to exceed ambient noise levels which range from around 90 dB re 1 µPa (root square mean sound pressure level (rms SPL)) under very calm, low wind conditions, to 120 dB re 1 µPa (rms SPL) under windy conditions (McCauley, 2005).</p> <p>The sound level and frequency characteristics ('signature') of discernible ships depend on their size, number of propellers, number and type of propeller blades, blade biofouling condition and machinery and transmission maintenance condition. A typical general support vessel's peak frequency or band ranges from 1 to 500 Hz at a peak source level of 170 to 190 dB re 1 µPa at 1 m. Larger vessel peak source levels have been presented in Arveson and Vendittis (2000). Larger vessels, such as the offshore support vessels, may generate marginally higher peak source level (for example, a 1 to 2 dB re 1 µPa at 1 m peak source level increase compared to a smaller general support vessel). It is considered the sound levels from project vessels used for this Petroleum Activities Program will be in the range of 170 to 192 dB re 1 µPa at 1 m at 1 to 500 Hz.</p> <p>Generation of Underwater Noise from Positioning Equipment</p> <p>An array of low baseline and ultra-short baseline transponders may be installed on the seabed for metrology and positioning. Transponders typically emit pulses of medium frequency sound, generally within the range of 21 to 31 kHz. The estimated SPL would be 180 to 206 dB re 1 µPa at 1 m (Jiménez-Arranz <i>et al.</i>, 2017). Transmissions are not continuous but consist of short 'chirps' with a duration that ranges from 3 to 40 milliseconds. Transponders will not emit any sound when on standby. When required for general positioning, they will emit one chirp every five seconds (estimated to be required for four hours at a time). When required for precise positioning, they will emit one chirp every second (estimated to be required for two hours at a time).</p> <p>Helicopters</p> <p>Helicopter engines and rotor blades are recognised as a source of noise emissions, which may constitute a source of environmental risk resulting in behavioural disturbance to marine fauna. Helicopter activities may occur in the Operational Areas, including the landing and take-off of helicopters on the offshore support vessel helideck. Sound emitted from helicopter operations is typically below 500 Hz (Richardson <i>et al.</i>, 1995). The peak received level diminishes with increasing helicopter altitude, but the duration of audibility often increases with increasing altitude.</p>														

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Richardson *et al.* (1995) reports that helicopter sound is audible in air for four minutes before it passes over underwater hydrophones, but detectable underwater for only 38 seconds at 3 m depth and 11 seconds at 18 m depth. Noise levels reported for a Bell 212 helicopter during fly-over was reported at 162 dB re 1 µPa and for Sikorsky-61 is 108 dB re 1 µPa at 305 m (Simmonds *et al.*, 2004).

Wellhead Removal

Additional noise from the cutting of the surface casing and conductors is likely to be generated. The casings and conductors will be cut below the mudline to enable wellhead recovery using either AWJ cutting method or mechanical cutting method.

Twachtman *et al.* (2004) studied the operational and socio-economic impact of non-explosive removal of offshore structures, including noise, and concluded that mechanical cutting and AWJ, as well as diamond wire cutting methods, are generally considered harmless to marine life and the environment. Similarly, Pangerc *et al.* (2016) described the underwater sound measurement data during an underwater diamond wire cutting of a 32-inch conductor (10 m above seabed in approximately 80 m depth) and found the sound radiated from the diamond wire cutting of the conductor was not easily discernible above the background noise at the closest recorder located 100 m from the source. The sound that could be associated with the diamond wire cutting was primarily detectable above the background noise at the higher acoustic frequencies (above approximately 5 kHz) (Pangerc *et al.*, 2016) above the hearing range of low-frequency cetaceans. Background noise was attributed to surface vessel activity, such as DP. In another study, the United States Navy measured underwater sound levels when the diamond saw was cutting caissons for replacing piles at an old fuel pier at Naval Base Point Loma (Naval Base Point Loma Naval Facilities Engineering Command Southwest, 2018). They reported an average SPL for a single cutter at 136.1 to 141.4 dB SPL at 10 m, as reported in Fairweather Science (2018).

Any noise propagating at seabed from either AWJ cutting or mechanical cutting of the wellhead casing and conductors is likely to attenuate to levels at, or close to, background ambient levels within less than 100 m of the source, with ambient levels being significantly elevated by the concurrent presence of a project vessel on DP immediately above the wellhead locations. As such, noise from the cutting of the casing and conductors is not expected to add to cumulative noise levels for the operation to any extent.

Table 7-2 summarises the noise emissions associated with the Petroleum Activities Program.

Table 7-2: Summary of noise emissions

Activity	Noise Level	Frequency	Type
Project vessels	170 to 190 dB re 1 µPa at 1 m	1 Hz to 5 kHz	Continuous
Helicopter	162 dB re 1 µPa 108 dB re 1 µPa at 305 m	<500 Hz	Continuous
Cutting	136 to 141 dB SPL at 10 m	Approximately 5 kHz	Continuous
Transponders	180 to 206 dB re 1 µPa at 1 m	21 to 31 kHz	Intermittent

Both continuous and impulsive noise sources are associated with the Petroleum Activities Program (Table 7-2). Continuous noise is a category of sound that is described by a continual non-pulsed sound. Continuous sound can be tonal, broadband or both. Some of these non-pulse sounds can be transient signals of short duration but without the essential properties of pulses (such as rapid rise-time) (Southall *et al.*, 2007). Due to the constant non-pulsed properties of continuous noise, the risk and severity of potential impact to marine fauna is lower than that of impulsive noise.

Impact Assessment

Potential Impacts to Environmental Values

Marine Fauna

Change in Fauna Behaviour

Elevated underwater noise can result in changes to marine fauna behaviour by masking or interfering with other biologically important sounds, including vocal communication, echolocation, signals and sounds produced by predators or prey, and through disturbance leading to behavioural changes or displacement from important areas (Richardson *et al.*, 1995).

The sensitivity of fauna behaviour to elevated noise levels varies both inter- and intra-specifically, with individual responses often being influenced by the present behaviour, such as reproductive behaviours, foraging or migration.

Thresholds, where appropriate, for behavioural response of different species to noise are discussed in the next sections.

Injury/Mortality to Fauna

In some cases, injury or mortality to marine fauna can occur due to elevated noise levels by causing direct physical effects on hearing or other organs, including (Richardson *et al.*, 1995):

- potential for mortality or mortal injury resulting from exposure to noise (considered negligible, given the noise sources associated with the Petroleum Activities Program, with the exception of plankton)
- permanent threshold shift (PTS) – permanent reduction in the ability to perceive sound after being exposed to noise
- temporary threshold shift (TTS) – temporary reduction in the ability to perceive sound after being exposed to noise, with hearing returning to normal.

Exposure to sufficiently intense sound may lead to an increased hearing threshold. If this shift is reversed and the hearing threshold returns to normal, the effect is called a TTS. Southall *et al.* (2007) defined TTS as a threshold shift of 6 dB above the normal hearing threshold. If the threshold shift does not return to normal, PTS has occurred. Threshold shifts can be caused by acoustic trauma from a very intense sound of short duration, as well as from exposure to lower-level sounds over longer time periods (Houser *et al.*, 2017).

Cetaceans and Marine Mammals

Behavioural reactions to acoustic exposure are generally more variable, context-dependent, and less predictable than the effects of noise exposure on hearing or physiology. This is because behavioural responses to anthropogenic sound depend upon operational and environmental variables, and on the physiological, sensory and psychological characteristics of exposed animals. It is important to note the animal variables may differ (greatly in some cases) among individuals of a species, and even within individuals, depending on various factors such as sex, age, previous history of exposure, season and animal activity. However, within certain similar conditions, there appears to be some relationship between the sound exposure level and the magnitude of behavioural response.

For low-frequency cetaceans, such as baleen whales, the frequency of the transponder signals is at the upper limit of the group’s auditory bandwidth (7 Hz to 22 kHz, Southall (2007)); therefore, they are unlikely to be impacted by the use of transponders.

For continuous noise, only weighted sound exposure level (SEL) metrics are provided in the literature (Table 7-3). Estimating SEL provides a metric that integrates cumulative exposures. For PTS and TTS to continuous noise, 24 hours has been provided as a suitable timeframe to estimate SEL. Continuous noise generated from the Petroleum Activities Program is expected to be up to 192 dB re 1 µPa at 1 m and impulsive noise 206 dB re 1 µPa at 1 m (Table 7-2). However, the potential for received levels to exceed weighted thresholds defined for PTS or TTS for marine mammals is considered very low, due to the cetacean’s mobility and ability to avoid the sound sources.

Table 7-3: Noise exposure criteria for onset of temporary and permanent threshold shifts from continuous and impulsive noise (NMFS, 2018) and behavioural response (NMFS, 2013)

Hearing group	PTS onset thresholds (received level) (Weighted SEL _{24h} :L _{E,24h} ; dB re 1 µPa ² ·s)		TTS onset thresholds (received level) (Weighted SEL _{24h} :L _{E,24h} ; dB re 1 µPa ² ·s)		Behavioural response (Sound Pressure Level: L _p ; dB re 1 µPa)	
	Continuous	Impulsive	Continuous	Impulsive	Continuous	Impulsive
Low-frequency cetaceans	199	183	179	168	120	160
Mid-frequency cetaceans	198	185	178	170	120	160
High-frequency cetaceans	173	155	153	140	120	160

Marine mammals that may occur within the Operational Areas are outlined in Section 5.3.3. There are no known aggregation, resting, breeding or feeding areas for marine mammals in proximity to the Operational Areas. All 36 Operational Areas overlap the pygmy blue whale distribution BIA but only one (Grange-1) overlaps with the pygmy blue whale migration BIA.

Impacts are predicted to relate to behavioural disturbance and avoidance only. Since activities will only occur in one Operational Area at any one time, potential impacts will be limited to temporary and localised changes in behaviour at the individual level, which are considered negligible with no lasting effect.

Turtles

The Recovery Plan for Marine Turtles (Commonwealth of Australia, 2017) notes there is limited information available about the impact of noise on marine turtles and that the impact of noise on turtle stocks may vary depending on whether exposure is short (acute) or long-term (chronic). Electro-physical studies have indicated the best hearing range for marine turtles is in the 100 to 700 Hz range (Bartol and Musick, 2003).

Popper *et al.* (2014) provided injury thresholds for turtles (greater than 207 dB PK) for impulsive sound but none exist for continuous noise. Additionally, no thresholds were provided for behavioural disturbance. For continuous noise

sources, such as vessel operations, marine turtles have been shown to avoid low-frequency sounds (Lenhardt, 1994). Further, in a playback study of diamondback terrapins (*Malaclemys terrapin terrapin*) using boat noise, some animals were observed to increase or decrease swimming speed while others did not alter their behaviour at all (Lester *et al.*, 2013).

The Operational Areas of 17 wellheads overlap with flatback turtle interesting buffer BIA (Julimar South East-1, Julimar East-1, Balnaves Deep-1, Grange-1, Brunello-1ST1, Brulimar-1, Lady Nora-2, Lowendal-1, Haycock-1, Dixon-1, Rankin-1, Dockrell-1, Tidepole-1, Goodwyn-3, Goodwyn-6, Goodwyn-4 and Goodwyn-1). The habitat critical for the survival of flatback turtles also overlaps with nine wellheads (Julimar South East-1, Julimar East-1, Grange-1, Balnaves Deep-1, Brunello-1, Brulimar-1, Lowendal-1, Lady Nora-2 and Haycock-1). However, the water depths of all Operational Areas do not support typical interesting habitat, marine turtles encountered in the Operational Areas are expected to be migrating or resident individuals traversing the area and not in a sensitive life stage, such as interesting, and no aggregations are expected.

Impacts are predicted to relate to behavioural disturbance and avoidance only. Potential impacts will be limited to temporary and localised changes in behaviour at the individual level, which are considered negligible with no lasting effect.

Fish

Guideline noise levels criteria from Popper *et al.* (2014) provide impact threshold for shipping and other continuous noise sources to Type 3 fish (swim bladder involved in hearing) at 170 dB re 1 μ Pa (SPL) over 48 hours for recoverable injury, and 158 dB re 1 μ Pa (SPL) over 12 hours for TTS. Thresholds for Type 2 (swim bladder present but not involved in hearing) and Type 1 (no swim bladder) are absent, but indicate the risk of recoverable injury is low, even in the nearfield and the risk of TTS is moderate in the nearfield but low in the intermediate and far field. The risk of mortality is considered low for all fish types, even in the nearfield. In the absence of more conclusive studies, these impact thresholds have been applied for conservatism.

None of the noise sources are expected to result in mortality of fish, of any type described by Popper *et al.* (2014). Pelagic fish species, including sharks and rays, may display behavioural responses, such as avoidance of the area, within close proximity of the vessels. While continuous noise levels associated with vessels may exceed recoverable injury and TTS thresholds for Type 3 species, for pelagic species, it is unlikely individuals will remain within areas of exceeded noise levels. The Operational Areas are not known to be an important spawning or aggregation habitat for commercially caught targeted species. Therefore, no impacts to fish stocks are expected.

A foraging BIA for whale sharks is overlapped by all 36 Operational Areas. As a cartilaginous fish lacking a swim bladder, whale sharks are categorised as a Type 1 fish. Thresholds for mortality or injury from impulsive noise (more than 213 dB re 1 μ Pa²-s, Popper *et al.* (2014)) are greater than any noise source of the Petroleum Activities Program. Type 1 fish are considered low risk of mortality or injury from continuous noise sources (Popper *et al.* 2014) and thresholds for TTS (193 dB re 1 μ Pa²-s) exceed any continuous noise source level. In summary, impacts to whale sharks foraging within the BIA are not expected.

Cultural Values and Heritage

Through consultation and review of available literature (Section 4.8.1), Woodside understands that marine fauna that may be affected by noise emissions, such as marine mammals and turtles, are culturally important to Traditional Custodians. Traditional Custodians value these species both tangibly as well intangibly as they can be considered a resource or linked to songlines and dreaming stories. Traditional Custodians also have connection to many marine species through kinship and totemic systems; an individual may have obligation to care for a species to which they are kin. Traditional Custodians may also have a cultural obligation to care for the environmental values of Sea Country.

For example, activities that impact turtle populations and their marine environment may have an indirect impact on some Indigenous communities if they deplete hunting areas and threaten local food security (Delisle *et al.* 2018:251). Whale species are subject of First Nations' increase ceremonies / rituals which are performed to enhance or maintain populations. As these thalu ceremonies are performed to maintain and increase populations of marine species, it is considered that management applies at the species/population level and not to individuals. For example the thalu site on Murujuga which "brings in whales to beach" will continue to serve its purpose so long as whales continue to migrate through Mermaid Sound.

Related intangible cultural heritage may include the transmission of cultural knowledge about whales and whale behaviour, including birthing areas, whale communication and migratory patterns. Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). Inter-generational transmission of cultural knowledge (including songlines) relating to marine reptiles may be impacted where changes results in reduced sightings (e.g., through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO 2003).

As described in the assessment of impacts to marine fauna (above), potential impacts to marine fauna are predicted to be at an individual level, which are not considered to be ecologically significant at a population level. Impacts are not expected to occur to ecologically significant proportions of the populations of the species, nor result in a decrease of the quality of the habitat such that the extent of these species is likely to decline. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

Summary of Potential Impacts to environmental value(s)

It is considered that noise generated by project vessels and helicopters will not result in a potential impact greater than short-term temporary disruption to a small portion of the population for any marine fauna species exposed, with no lasting effects.

Demonstration of ALARP

Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁴	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
<p>EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans, including the following measures²⁵:</p> <ul style="list-style-type: none"> Project vessels will not travel faster than six knots within 300 m of a cetacean or turtle (caution zone) and not approach closer than 100 m from a whale. Project vessels will not approach closer than 50 m for a dolphin or turtle and 100 m for a whale (with the exception of animals bow-riding). If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than six knots. <p>Vessels will not travel faster than eight knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.</p>	<p>F: Yes CS: Minimal cost.</p>	<p>Implementation of these controls will not significantly reduce negligible impacts to marine fauna from underwater noise given outcomes of impact assessment.</p>	<p>Disproportionate . The cost/sacrifice outweighs the benefit gained. However, control has been adopted to minimise vessel collisions with marine fauna in Section 7.8.6.</p>	<p>Yes C 4.1</p>
Good Practice				
<p>The use of dedicated marine fauna observers (MFOs) on support vessels for the duration of the Petroleum Activities Program to watch for cetaceans and provide direction on and monitor compliance with Part 8 of the EPBC Regulations.</p>	<p>F: Yes. However, support vessel bridge crews who already maintain a constant watch during operations. CS: Additional cost of MFOs.</p>	<p>Given general support vessel bridge crews already maintain a constant watch during operations, additional MFOs would not further reduce the likelihood of an individual being within close proximity of the acoustic source during start-up or operations.</p>	<p>Disproportionate. The cost/sacrifice outweighs the benefit gained.</p>	<p>No</p>

²⁴ Qualitative measure

²⁵For safety reasons, the distance requirements below are not applied for a vessel holding station or with limited manoeuvrability; for example, loading, back-loading, bunkering, close standby cover for overside working and emergency situations.

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁴	Benefit/Reduction in Impact	Proportionality	Control Adopted
Professional Judgement – Eliminate				
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
Operational activities to avoid coinciding with sensitive periods such as pygmy blue whale migration (April to December).	F: Yes. Avoidance of blue whale migration periods is technically feasible. CS: Significant cost and schedule delays in securing the project vessels for specific timeframes.	Negligible reduction in consequence, given the duration and nature of the activity.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit.	No
Operational activities to avoid coinciding with sensitive periods such as flatback turtle internesting and hatching (September to April).	F: Yes. Avoidance of turtle nesting periods is technically feasible. CS: Significant cost and schedule delays in securing the project vessels for specific timeframes.	Negligible reduction in consequence, given the duration and nature of the activity.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>Relevant tools appropriate to the decision type (in other words, Decision Type A) have not identified any appropriate controls to manage the impact of noise emissions. As no reasonable additional or alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.</p>				

Demonstration of Acceptability

Acceptability Statement

The impact assessment has determined that, given the adopted controls, project vessel noise disturbance is unlikely to result in a potential impact greater than localised and temporary disruption to a small proportion of the population, with no lasting effects, and no impact on critical habitat or activity. Further opportunities to reduce the impact have been investigated above.

During consultation, WAC asked about potential noise impact on whale communication. Woodside responded to WAC during the meeting to clarify that controls would be in place to reduce this risk, and no further concerns were raised following this meeting (Table 1, Appendix F). Given impacts are anticipated to be temporary and minor behavioural disturbance to individuals and no impacts on a population level are expected to occur, cultural values and intangible cultural heritage associated with these species are expected to be maintained and no heightened damage to wildlife will occur during the activities.

The potential impacts and risks are considered broadly acceptable. On the basis of the environmental impact assessment outcomes and Woodside’s criteria for acceptability, this is considered an acceptable level of impact.

Environmental Performance Outcomes, Standards and Measurement Criteria

Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 4</p> <p>No impacts to marine fauna from noise emissions with a consequence level greater than F²⁶ during the Petroleum Activities Program.</p>	<p>C 4.1</p> <p>EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans, including the following measures²⁷:</p> <ul style="list-style-type: none"> Project vessels will not travel faster than six knots within 300 m of a cetacean or turtle (caution zone) and not approach closer than 100 m from a whale. Project vessels will not approach closer than 50 m for a dolphin or turtle and 100 m for a whale (with the exception of animals bow-riding). If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than six knots. <p>Vessels will not travel faster than eight knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.</p>	<p>PS 4.1</p> <p>Compliance with EPBC Regulations 2000 – Part 8 Division 8.1 (Regulations 8.05 and 8.06) Interacting with cetaceans to minimise potential for vessel strike and application of these regulations to whale sharks and marine turtles.</p>	<p>MC 4.1.1</p> <p>Records demonstrate no breaches of EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans and application of these regulations to whale sharks and marine turtles.</p>

²⁶ Defined as ‘No lasting effect (<1 month) or negligible impact. Localised impact not significant to environmental receptor’

²⁷For safety reasons, the distance requirements below are not applied for a vessel holding station or with limited manoeuvrability; for example, loading, back-loading, bunkering, close standby cover for overside working and emergency situations.

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7.7.4 Routine Atmospheric Emissions: Fuel Combustion

Context														
Project Vessels – Section 4.8 Helicopters – Section 4.10				Physical Environment – Section 5.1.4				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Broadly Acceptable Acceptability	Outcomes
Exhaust emissions from internal combustion engines and incinerators on project vessels and helicopters within the Operational Area				X				A	F	-	-	LCS	Broadly Acceptable	EPO 5
Description of Source of Impact														
One to two project vessels will be present in each Operational Area for up to ten days. Atmospheric emissions will be generated by these project vessels from internal combustion engines (including all equipment and generators) and incineration activities (including onboard incinerators) during the Petroleum Activities Program. Emissions will include SO ₂ , NO _x , ozone depleting substances, CO ₂ , particulates and volatile organic compounds.														

Impact Assessment
Potential Impacts to Environmental Values
Fuel combustion has the potential to result in localised, temporary reduction in air quality. Potential impacts include a localised reduction in air quality and contribution to greenhouse gas emissions. Given the short duration and exposed location of project vessels, which will lead to the rapid dispersion of the low volumes of atmospheric emissions, the potential impacts are expected to be localised and of no lasting effect.
Summary of Potential Impacts to Environmental Values(s)
Given the adopted controls, it is considered that the release of a small volume of greenhouse gases will not result in a potential impact greater than a localised impact to local air quality, with no lasting effect.

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <small>28</small>	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Marine Order 97 (marine pollution prevention – air pollution), which details requirements for: <ul style="list-style-type: none"> International Air Pollution Prevention 	F: Yes. CS: Minimal cost.	Legislative requirements to be followed may reduce the consequences of air pollution.	Control based on legislative requirements – must be adopted.	Yes C 5.1

²⁸ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <small>28</small>	Benefit/Reduction in Impact	Proportionality	Control Adopted
Certificate, required by vessel class <ul style="list-style-type: none"> • use of low sulphur fuel • Ship Energy Efficiency Management Plan, where required by vessel class • onboard incinerator to comply with Marine Order 97. 				
Good Practice				
None identified.				
Professional Judgement – Eliminate				
Do not combust fuel.	F: No. There are no vessels that do not use internal combustion engines. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
ALARP Statement On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the potential impacts of release of atmospheric emissions within the Operational Areas. As no reasonable additional or alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The impact assessment has determined that, given the adopted controls, atmospheric emissions during the Petroleum Activities Program will not result in a potential impact greater than a temporary decrease in local air quality, with low impact to the environment or human health and no lasting effects. Further opportunities to reduce the impacts and risks have been investigated above.</p> <p>The adopted controls are considered good oil-field practice/industry best practice. Therefore, Woodside considers the adopted controls appropriate to manage the impacts of the described emissions within the Operational Areas to a level that is broadly acceptable.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 5</p> <p>Fuel combustion emissions and incineration during the Petroleum Activities Program will be in compliance with Marine Order requirements to restrict emissions to those necessary to perform the activity.</p>	<p>C 5.1</p> <p>Marine Order 97 (marine pollution prevention – air pollution) which details requirements for:</p> <ul style="list-style-type: none"> • International Air Pollution Prevention Certificate, required by vessel class • use of low sulphur fuel when available • Ship Energy Efficiency Management Plan, where required by vessel class • onboard incinerator to comply with Marine Order 97. 	<p>PS 5.1</p> <p>Project vessels compliant with Marine Order 97 (marine pollution prevention – air pollution) to restrict emissions to those necessary to perform the activity.</p> <p>Vessel marine assurance process conducted prior to contracting vessels, to ensure suitability and compliance with vessel combustion certification and Marine Order requirements.</p>	<p>MC 5.1.1</p> <p>Marine assurance inspection records demonstrate compliance with Marine Order 97.</p>

7.7.5 Routine Discharge: Bilge Water, Grey Water, Sewage, Putrescible Wastes and Deck Drainage Water

Context														
Project Vessels – Section 4.8			Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6							
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Routine discharge of sewage, grey water and putrescible wastes to marine environment from project vessels within the Operational Areas			X		X			A	F	-	-	LCS	Broadly acceptable	EPO 6
Routine discharge of deck and bilge water to marine environment from project vessels within the Operational Areas			X		X			A	F	-	-			
Description of Source of Impact														
<p>One to two project vessels will be present in each Operational Area for up to ten days. These project vessels routinely generate and discharge:</p> <ul style="list-style-type: none"> • small volumes of treated sewage, putrescible wastes and grey water to the marine environment (impact assessment based on approximate discharge of 15 m³ per vessel per day), using an average volume of 75 L/person/day and a maximum of 200 persons on board. However, it is noted vessels such as support vessels will have considerably less persons on board. • routine or periodic discharge of relatively small volumes of bilge water – bilge tanks on the project vessels receive fluids from many parts of the vessel; bilge water can contain water, oil, detergents, solvents, chemicals, particles and other liquids or solids • variable water discharge from project vessel decks directly overboard or via deck drainage systems – water sources could include rainfall events or deck activities such as cleaning and wash-down of equipment and decks. <p>Environmental risk relating to the disposal and discharges above regulated levels or incorrect disposal or discharge of waste would be unplanned (non-routine or accidental) and are addressed in Section 7.8.5.</p>														

Impact Assessment
Potential Impacts to Environmental Values
<p>Routine discharges generated from the Petroleum Activities Program have the potential to cause temporary and localised reduction in water quality. The main environmental impact associated with ocean disposal of sewage and other organic wastes (as in, putrescible waste) is eutrophication. Eutrophication occurs when the addition of nutrients, such as nitrates and phosphates, causes adverse changes to the ecosystem, such as oxygen depletion and phytoplankton blooms. Other contaminants of concern occurring in these discharges may include ammonia, E. coli, faecal coliform, volatile and semi-volatile organic compounds, phenol, hydrogen sulphide, metals, surfactants and phthalates.</p> <p>Woodside monitored sewage discharges at its Torosa-4 Appraisal Drilling campaign, which demonstrated a 10 m³ sewage discharge reduced to about 1% of its original concentration within 50 m of the discharge location. In addition to this, monitoring at distances of 50, 100 and 200 m downstream of the platform and at five different water depths confirmed discharges were rapidly diluted and no elevations in water quality monitoring parameters (such as total nitrogen, total phosphorous and selected metals) were recorded above background levels at any station (Woodside Energy Limited, 2011). Mixing and dispersion would be further facilitated in deep offshore waters, consistent with the location of the Operational Areas, through regional wind and large-scale current patterns resulting in rapid mixing of surface and near-surface waters where sewage discharges may occur. Studies investigating the effects of nutrient enrichment from offshore sewage discharges indicate the influence of nutrients in open marine areas is much less significant than that experienced in enclosed areas (McIntyre and Johnston, 1975).</p> <p>Furthermore, open marine waters do not typically support areas of increased ecological sensitivity, due to the lack of nutrients in the upper water column and lack of light penetration at depth. Therefore, presence of receptors, such as fish, reptiles, birds and cetaceans, in significant numbers within the Operational Areas is unlikely. Research also suggests zooplankton composition and distribution are not affected in areas associated with sewage dumping grounds (McIntyre and Johnston, 1975). Plankton communities are expected to rapidly recover from any such short-term, localised impact, as they are known to have naturally high levels of mortality and a rapid replacement rate.</p> <p>Other discharges outlined, which may include other non-organic contaminants (such as bilge water), will be rapidly diluted through the same mechanisms as above and are expected to be in very small quantities and concentrations as to not pose any significant risk to any relevant receptors.</p> <p>There are two KEFs that overlap with at least one Operational Area: Ancient Coastline and Glomar Shoals (Section 5.4). Glomar Shoals is a submerged feature at depths of 33 to 77 metres (Falkner <i>et al.</i>, 2009) and the Ancient Coastline is defined by a depth range of 115 to 135 m. Given the water depths and open ocean environment, impacts to the values of these KEFs are not expected. As such, no significant impacts from the planned discharges that are listed above are anticipated because of the minor quantities involved, the expected localised mixing zone and high level of dilution into the open water marine environment of the Operational Area.</p>
Summary of Potential Impacts to Environmental Values(s)
<p>Given the adopted controls, it is considered routine discharges described will not result in a potential impact greater than a negligible localised reduction in water quality, with no lasting effect.</p>

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class), which requires putrescible waste and food scraps to pass through a macerator, so it is capable of passing through a screen with no opening wider than 25 mm.	F: Yes. CS: Minimal cost. Standard practice.	No reduction in consequence would result.	Controls based on legislative requirements – must be adopted.	Yes C 6.1
Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class), specifically:	F: Yes. CS: Minimal cost. Standard practice.	No reduction in consequence would result.	Controls based on legislative requirements – must be adopted.	Yes C 6.2

²⁹ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) ²⁹	Benefit/Reduction in Impact	Proportionality	Control Adopted
<ul style="list-style-type: none"> • a valid International Sewage Pollution Prevention Certificate, as required by vessel class • an AMSA-approved sewage treatment plant • sewage comminuting and disinfecting system • a sewage holding tank sized appropriately to contain all generated waste (black and grey water) • discharge of sewage that is not comminuted or disinfected to only occur at a distance of more than 12 nm from the nearest land • discharge of sewage that is comminuted or disinfected using a certified approved sewage treatment plant to only occur at a distance of more than 3 nm from the nearest land • discharge of sewage to occur at a moderate rate while the vessel is proceeding (more than 4 knots), to avoid discharges in environmentally sensitive areas. 				
<p>Marine Order 91 – oil (as relevant to vessel class) requirements, which include mandatory measures for the processing of oily water prior to discharge:</p> <ul style="list-style-type: none"> • machinery space bilge/oily water to have International Maritime Organization (IMO) approved oil filtering equipment (oil/water separator) with an online monitoring device to measure oil-in-water (OIW) content to be less than 15 ppm prior to discharge • IMO-approved oil filtering equipment to also have an alarm and an automatic stopping device or be capable of 	<p>F: Yes. CS: Minimal cost. Standard practice.</p>	<p>No reduction in consequence would result.</p>	<p>Controls based on legislative requirements – must be adopted.</p>	<p>Yes C 6.3</p>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)²⁹	Benefit/Reduction in Impact	Proportionality	Control Adopted
recirculating in the event OIW concentration exceeds 15 ppm <ul style="list-style-type: none"> • a deck drainage system capable of controlling the content of discharges for areas of high risk of fuel, oil, grease or hazardous chemical contamination • a waste oil storage tank available, to restrict oil discharges • in the event that machinery space bilge discharges cannot meet the oil content standard of more than 15 ppm without dilution or be treated by an IMO-approved oil/water separator, to be contained on-board and disposed of onshore • a valid IOPP Certificate, as required by vessel class. 				
Good Practice				
None identified.				
Professional Judgement – Eliminate				
Storage, transport, disposal and onshore treatment of sewage, greywater, putrescible and bilge wastes.	F: No. Would present additional safety and hygiene hazards resulting from the storage, loading and transport of the waste material. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
ALARP Statement				
On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts of planned routine discharges from the project vessels. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.				

Demonstration of Acceptability
Acceptability Statement
The impact assessment has determined that, given the adopted controls, planned (routine) discharges from project vessels are unlikely to result in a potential impact greater than a temporary contamination above background levels or

Demonstration of Acceptability

national and international quality standards and known biological effect concentrations outside a localised mixing zone, with no lasting effect. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are considered good oil-field practice/industry best practice and meet legislative requirements under Marine Orders 91, 95 and 96. Therefore, Woodside considers the adopted controls appropriate to manage the impacts of these discharges to a level that is broadly acceptable.

Environmental Performance Outcomes, Standards and Measurement Criteria

Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 6 No impact to water quality greater than a consequence level of F³⁰ from discharge of sewage, greywater, putrescible wastes, bilge and deck drainage to the marine environment during the Petroleum Activities Program.</p>	<p>C 6.1 Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class), which requires putrescible waste and food scraps to pass through a macerator so it is capable of passing through a screen with no opening wider than 25 mm.</p>	<p>PS 6.1 Project vessels compliant with Marine Order 95 – pollution prevention – garbage.</p>	<p>MC 6.1.1 Records demonstrate project vessels are compliant with Marine Order 95 – pollution prevention (as appropriate to vessel class).</p>
	<p>C 6.2 Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class), specifically:</p> <ul style="list-style-type: none"> • a valid International Sewage Pollution Prevention Certificate, as required by vessel class • an AMSA-approved sewage treatment plant • sewage comminuting and disinfecting system • a sewage holding tank sized appropriately to contain all generated waste (black and grey water) • discharge of sewage which is not comminuted or disinfected to only occur at a distance of more than 12 nm from the nearest land • discharge of sewage which is comminuted or disinfected using a certified approved sewage treatment plant to only occur at a distance of more than 3 nm from the nearest land • discharge of sewage to occur at a moderate rate while the vessel is proceeding (more than 4 knots), to avoid discharges in environmentally sensitive areas. 	<p>PS 6.2 Project vessels compliant with Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class).</p>	<p>MC 6.2.1 Records demonstrate project vessels are compliant with Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class).</p>

³⁰ Defined as 'No lasting effect (<1 month) or negligible impact. Localised impact not significant to environmental receptors.'

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>C 6.3</p> <p>Marine Order 91 – oil (as relevant to vessel class) requirements, which include mandatory measures for the processing of oily water prior to discharge:</p> <ul style="list-style-type: none"> • machinery space bilge/oily water to have IMO-approved oil filtering equipment (oil/water separator) with an on-line monitoring device to measure OIW content to be less than 15 ppm prior to discharge • IMO-approved oil filtering equipment to also have an alarm and an automatic stopping device or be capable of recirculating in the event OIW concentration exceeds 15 ppm • a deck drainage system capable of controlling the content of discharges for areas of high risk of fuel, oil, grease or hazardous chemical contamination • a waste oil storage tank available, to restrict oil discharges • in the event machinery space bilge and deck drainage discharges cannot meet the oil content standard of less than 15 ppm without dilution or be treated by an IMO-approved oil/water separator, to be contained on-board and disposed of onshore • a valid IOPP Certificate, as required by vessel class. 	<p>PS 6.3</p> <p>Deck drainage and bilge water will be discharged to meet the oil content standard of less than 15 ppm without dilution.</p>	<p>MC 6.3.1</p> <p>Records demonstrate discharge specification met for project vessels.</p>

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7.7.6 Routine Discharge: Wellhead Removal and Recovery

Context														
Removal of Wellheads and Associated Infrastructure – Section 4.11				Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Discharge of grit and flocculant and/or metal swarf (from mechanical cutter, diamond wire saw) during removal of well infrastructure		X	X		X	X	X	A	F	-	-	GP	Broadly acceptable	EPO 7
Discharge of fluids during IMR		X	X		X	X		A	F	-	-			
Discharge of displacement and casing annuli fluids during removal		X	X		X	X		A	E	-	-			
Routine and non-routine discharge of cement, cementing fluids (for wells containing NWBM)		X	X		X			A	E	-	-			
Corrosion of well environment plugs (for wells containing NWBM)		X	X		X			A	F	-	-			
Description of Source of Impact														
<p>Grit and flocculant and/or metal swarf</p> <p>Where AWJ cutting is selected (Section 4.11), 4 tonnes of grit and 250 L of flocculant will be discharged per well, with most or all of the discharge to be released below the mudline. Some very small volumes may be released to the surface sediments if the cut is made at or close to the mudline. During physical removal of the wellhead, some displacement fluids may also be discharged.</p> <p>As the planned cutting depth is approximately 3 m below the mudline, discharges from cutting of well infrastructure using either a mechanical cutting tool, diamond wire saw or AWJ cutting method are expected to be confined predominantly within the well and settle on the top permanent plug. During the final cut through the conductor pipe, small amounts of discharges will be released below the mudline to sediments immediately surrounding the well.</p> <p>Should cutting at a shallower depth be required, however, these discharges may be released to the seabed surface. For the mechanical cutting tool and diamond wire saw, discharges will be limited to small quantities of metal and cement cuttings from the infrastructure itself as well as small quantities of lubricant. For the AWJ cutting method, discharges include a small amount of grit and flocculant. Depending on the cutting depth, pressure from the jet cutting could push some of the material up to the seabed surface causing localised smothering of benthic communities as well as create localised and temporary increases in turbidity around the well.</p> <p>Displacement and casing annuli fluids</p>														

Upon wellhead removal, displacement fluids above the top cement plug, comprising between 0.3 m³ and 55 m³ of inhibited seawater or water-based mud per well, will be released into the marine environment. Chemicals comprising inhibited seawater and water-based muds are provided in Table 4-5

In addition, once the wellhead is removed, the uppermost section of the annular spaces behind the 9-5/8" and 13-3/8" casing will become open to the marine environment. These spaces contain varying volumes of trapped fluid, as described in Table 4-4, and will be exposed to surrounding seawater at the seabed. Due to the density differentiation of the water-based well annular fluids and seawater, it is expected that the heavier water-based fluids will remain in the well annular space, with any lighter components dispersing and exchanging slowly over time in the marine environment.

Corrosion of well surface plug environment plugs (for wells containing NWBM)

Of the 36 wells, the annulus fluids of 33 comprise WBM and for the remaining three wells (Balnaves Deep-1, Lambert-5ST1 and Waneae-4), the annulus fluids include NWBM (Table 4-4). For these three NWBM wells, an environment plug will be installed to create a barrier to the annulus preventing release of the majority of the annulus fluid volume. However, up to approximately 5 m³ of annulus fluids may be released during cement plug installation activities. Over time (hundreds of years), there is potential for the plug casing to degrade and create a pathway for fluid to be released to the marine environment. For one additional well, Julimar South East-1, 101 m³ of NWMB is located between the top cement plug and the reservoir plug, and due to the casing design, may enter the annulus gradually over time as the casing degrades. Due to the lighter density of the degraded fluid (lighter than seawater), it is possible that exchange of this fluid with the marine environment could occur over time.

Cementing Fluids, Cement and Grout

Cementing fluids, including cementing mix water, may require discharge to the marine environment under various scenarios. After installation of the environment plug in each of the three NWBM wells, excess cement will be either be used for the next NWBM well or provided to the next operator (as it remains on the vessel); or, if this option is not practicable, discharged to the marine environment as dry bulk or as a slurry. This is estimated to be about 15 m³ per well (based on up to three cement jobs per well, with 5 m³ discharged per job). Upon arrival at the Operational Area for the three NWBM wells, a cement unit test may be performed. Discharges from the test are made through the usual cement unit discharge line, which may be from 10 m below or up to 10 m above the sea level, and will occur either as a cement slurry or as dry cement. The slurry is usually a mix of cement and water (about 10 m³); however, may sometimes contain stabilisers or chemical additives.

IMR fluids

Fluids used in IMR activities contain small volumes (<5 L) of sulfamic acid, or equivalent, and oxygen scavengers. All chemicals used for infrastructure removal are assessed in accordance with the Woodside Chemical Selection and Assessment Environment Guideline.

Impact Assessment

Potential Impacts to Environmental Values

The identified potential impacts associated with discharges from wellhead removal and recovery activities include localised and temporary reduction in water and localised change in seabed sediment quality, as well as localised burial of benthic biota (species) and change to habitats and communities.

A number of direct and indirect impact pathways are identified for these discharges, including:

- temporary increase in total suspended solids (TSS) in the water column, occurring through the AWJ cutting process
- sediment deposition to the seabed, leading to minor alteration of the physico-chemical composition of sediments, and burial and potential smothering effects to sessile benthic biota, occurring through discharge of dry cement and through the AWJ cutting process
- potential contamination and toxicity effects to benthic and in-water biota from release of displacement and annulus fluids.

Any increased turbidity and TSS levels in the water column will be temporary and highly localised to the well location. Nelson *et al.* (2016) identified less than 10 mg/L TSS has no effect or sub-lethal minimal effect concentration. Given the generally low concentration of TSS, due to rapid dispersion in the offshore open ocean site in conjunction with rapid dispersion of sediment, the very small volumes of discharge and the temporary nature of the AWJ cutting activity, impacts to water quality or benthic invertebrates are expected to be negligible, with no impacts to any protected species.

The discharges associated with the AWJ process may also result in smothering of the seafloor. However, as with TSS, any impact will be highly localised around the wellheads. Smothering may also occur through release of dry bulk cement following completion of wellhead removal. However, smothering a surface release of cement is expected to be minimal due to the high dispersal by ocean currents and short-term duration of these discharges. Cement is inert and does not pose toxicological impacts.

Potential contamination or toxicity effect can occur through the release of displacement of annulus fluids to the marine environment. In comparison, the volume and nature of discharges during IMR reduce the potential for impact to below that of displacement and annulus fluids, and therefore are not considered further.

Fluids include between 0.3 m³ and 55 m³ of inhibited seawater within the displacement fluid of all 36 wells and between 44 m³ and 218 m³ of WBM for 33 of the wells. Drilling additives used in WBM systems are either completely inert in the marine environment, naturally occurring benign materials or readily biodegradable organic polymers, with a very fast rate of biodegradation in the marine environment. As shown in 1The wellhead Julimar South East-1 does not have NWBM above the environment plug, but it is within the casing between the environment and reservoir abandonment plug.

Table 4-6, indicative components of the WBM have a low toxicity and are listed either 'E' category fluids or 'Gold' banded fluids under the OCNS, with some chemicals included on the OSPAR list of chemicals used and discharged offshore that are considered to 'pose little or no risk to the environment' (PLONOR). The density of WBM components within the annulus are denser than seawater meaning that it is likely that the fluids will remain in the annulus, with a gradual dispersion of a proportion of the total volume at the seafloor over time. Since it is not possible to determine the proportion which may enter the marine environment, it is assumed that the total volume is gradually released as a worst-case scenario. Given the low toxicity, low bioaccumulation and biodegradability characteristics of the WBM, and the non-instantaneous nature of the release, the WBM fluids are expected to result in rapid dilution to a no-effect concentration within meters of the release location, with negligible impacts to water quality and the surrounding benthic habitats with no lasting effect.

For the three NWBM wells (Balnaves Deep-1, Lambert 5ST1 and Waneae-4), the annulus contains between 62 m³ and 103 m³ of NWBM, additionally Julimar South East -1 contains 103 m³ of NWBM between the top cement plug and reservoir abandonment plug. The main ingredient in NWBM is base oil (typically between 50% and 70% of NWBM volume), which are Group III fluids (paraffins, olefins and esters), meaning they have a low to negligible aromatic content and are considered less toxic and more biodegradable than diesel and mineral oil generated base fluids. Between 41 m³ and 67 m³ of base oil is present within the NWBM wells. Considering the time elapsed since these wells were drilled (11 to 30 years), some demulsification of the fluid is expected to have occurred, resulting in separation of the base oil. Since base oil is less dense than seawater, it is expected that the base oil component would migrate to the top of the annulus and released once the wellhead is removed, albeit not instantaneously. The rate of release is not possible to determine and therefore it is assumed that the release would be instantaneous. To prevent this from occurring, an environment plug will be installed prior to wellhead removal (Section 4.12). During this process, up to 5 m³ of the annulus fluid may be released. Furthermore, the environment plug is expected to gradually degrade over time (hundreds of years), releasing the annulus fluid gradually.

Once released, the base oil is expected to undergo rapid dispersion and evaporation due to its high volatility. Predicted weathering of base oil, based on typical conditions in the NW region, indicates that about 50% by mass is predicted to evaporate over the first day or two. Components of base oil that are not evaporated may become entrained and are expected to settle out in the water column and be subject to dilution and biodegradation over an extended period of up to 28 days.

Under both scenarios (5 m³ during wellhead removal and total volume over time) minor volumes would be released at any one time allowing rapid evaporation and dilution to occur, reducing any toxicity to below acute thresholds. As with WBMs, the components used are listed either 'E' category fluids or 'Gold' banded fluids under the OCNS, with some chemicals included on the OSPAR list of chemicals used and discharged offshore that are considered to 'pose little or no risk to the environment' (PLONOR). Given the low toxicity, low bioaccumulation and biodegradability characteristics of the components of the NWBM, and the non-instantaneous nature of the release, any release is expected to result in rapid dilution to a no-effect concentration within meters of the release location, with negligible impacts to water quality and the surrounding benthic habitats with no lasting effect.

The Operational Areas are situated in offshore waters in water depths ranging from 69 m (Angel-3) to 177 m (Grange-1). There are two KEFs that overlap with the Operational Areas: Ancient Coastline and Glomar Shoals (Figure 5-12). Fifteen wellheads overlap the Ancient Coastline KEF (Dockrell-1, Goodwyn-1, Goodwyn-2, Goodwyn-3, Goodwyn-4, Goodwyn-5, Goodwyn-6, North Rankin-1, North Rankin-2, North Rankin-3, North Rankin-4, North Rankin-5, North Rankin-6, Lambert-1 and Balnaves Deep-1). One of these wells, Balnaves Deep-1, has NWBM within the annulus.

Impacts to benthic habitats from the planned discharges describe above are restricted to within a few meters of the well locations. When considered in context of the overall size of the Ancient Coastline KEF, this area of potential impact represents a negligible proportion of the overall KEF. Given the negligible impacts to benthic habitats expected, planned discharges associated with wellhead removal are not expected to affect the values of this KEF.

Angel-3 is the only wellhead that overlaps the Glomar Shoals KEF. Glomar Shoals is a submerged feature at depths of 33 to 77 m (Falkner *et al.*, 2009). Approximately 0.9% of the Glomar Shoals KEF overlaps the Angel-3 Operational Area (in the north-western section of the KEF), refer to Figure 5-12, with the Glomar Shoals feature located more than 15 km from the Angel-3 Operational Area. The Angel-3 wellhead is located at a depth of 69 m (water depth where benthic cover is less than 2%), and is located 15 km from hard coral communities associated with the Glomar feature itself. And is located 15 km from hard coral communities associated with the Glomar feature itself, the impact of the routine discharges describe above to the values of this KEF are considered negligible.

Any impacts to soft sediment communities is not expected to affect the diversity or ecosystem function in this area and is only considered a localised impact with no lasting effect.

<p>Cultural Heritage</p> <p>As described in Section 5.6.1 the activity occurs on the Ancient Landscape and therefore, routine discharges within each Operational Area may directly disturb a very small, localised area of the key ecological feature (KEF) and there is the potential that Indigenous Cultural features may exist. These may potentially be disturbed by routine discharges of grit, flocculant or metal swarf. While no cultural features have been identified in the Operational Areas, further archaeological studies will be undertaken prior to the activity commencing to understand any potential cultural features (See C 4.1).</p>
<p>Summary of Potential Impacts to Environmental Values(s)</p>
<p>Discharges as a result of wellhead removal will not result in a potential impact greater than localised burial and smothering of benthic habitats, resulting in slight and short term impacts to the seabed and/or benthic habitats, and slight and short term effects to water quality (such as temporary and localised increase in turbidity and toxicity), (in other words, Environmental Impact – E). Any localised impacts to water quality, sediment quality and marine fish are not expected to impact any commercial fishers in the area.</p>

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
None identified.				
Good Practice				
Fluids and additives planned to be used and intended or likely to be discharged to the marine environment will have an environmental assessment completed before use.	F: Yes. CS: Minimal cost. Standard practice.	Environmental assessment of chemicals will reduce the consequence of impacts resulting from discharges to the marine environment by ensuring chemicals have been assessed for environmental acceptability. Planned discharges are required for the safe execution of activities and therefore no reduction in likelihood can occur.	Benefits outweigh cost/sacrifice.	Yes C 7.1
Remove fluids from well annulus by perforating casing and circulating fluids out of the well for onshore disposal	F: No – fluids cannot be isolated prior to wellhead removal. Wellhead removal cannot occur without release of fluids to the marine environment. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No

³¹ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Monitoring and/or remediation to make good any damage to the seabed or subsoil and provide for conservation and protection of the natural resources in the area of the wellheads	F: Yes. CS: Moderate.	<p>Impacts to the seabed, sediments and benthic habitats from drilling activities can include temporary sedimentation from increased turbidity or toxic impacts from drilling muds. For wells drilled with WBM, toxic impacts are expected to be negligible. For wells drilled with NWBM, cuttings would only be disposed of from the drill rig if oil-on-cuttings limits could be achieved, or onshore in not. As such, the drill cuttings will not be located around the wellheads.</p> <p>Considering the time since these wells were drilled (10 to 50 years ago), and the temporary nature of impacts described above, it is expected that the seabed, sediments and benthic habitats will have recovered or rehabilitated since the drilling activities.</p> <p>Impacts from removal activities may occur from increased turbidity and resuspension of drill cuttings. Such impacts are expected to be highly localised around the well location and limited to a small number of benthic invertebrates, fish and plankton.</p> <p>These impacts do not represent unacceptable damage to the seabed or subsoil and allow for the conservation and protection of the natural resources in the area.</p> <p>Therefore, there is no benefit to be gained from further monitoring or remediation of the seabed surrounding the wellhead.</p>	Cost of the control is disproportionate to the benefit that may be gained from it given wellheads will be removed and impacts to the seabed have been assessed as negligible.	No
Installation of environment plug for wells containing residual NWBM	F: Yes. CS: Moderate.	Prevents instantaneous loss of up to 103 m ³ of NWBM to the marine environment	Benefits outweigh cost/sacrifice.	Yes C 7.2

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
Installation of environment plug for wells containing residual WBM	F: Yes. CS: Moderate.	Prevents instantons loss of up to 218 m ³ of WBM to the marine environment	Given the low toxicity, bioaccumulation and biodegradability of the WBM, and the non-instantaneous release of low volumes, impacts are expected to be negligible and the cost of installing an additional 33 environment plugs is considered disproportionate the benefit gained.	No
Professional Judgement – Eliminate				
Return bulk cement for onshore disposal	F: No. The technical requirements to be able to undertake this safely are unresolved due to: <ul style="list-style-type: none"> • significant risks with tank high pressure differentials to transfer material onshore • high risk with the vessel to waste truck transfer due to tank corrosion concerns and pressure relief valve issues. CS: Not considered. Control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³¹	Benefit/Reduction in Impact	Proportionality	Control Adopted
<p>ALARP Statement</p> <p>On the basis of the environmental impact assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted, standard 'good practice' controls appropriate to manage the impacts of wellhead removal discharges.</p> <p>Installation of an environment plug prevents the instantaneous loss of quantities of NWMB into the marine environment. While releases of NWBM may occur, volumes released at are small, and would occur over a long period and with rapid evaporation, reduces the toxicity of such discharges to below acute thresholds. This ensures any potential impacts are restricted to within meters of the well location, are temporary in duration, and considered negligible.</p> <p>Furthermore, no additional controls are required to provide for the conservation and protection of natural resources in the area of the wellheads, or to make good any damage to the seabed or subsoil, as per Section 270(3)(e) and (f) of the OPGGS Act.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The impact assessment has determined that, given the adopted controls, planned (routine and non-routine) discharges from the removal of wellhead infrastructure are unlikely to result in a potential impact greater than a temporary increase in turbidity, negligible levels of smothering, and changes in water quality below acute toxicity thresholds immediately surrounding the wellhead, with no lasting effect.</p> <p>The adopted controls are considered good practice. Therefore, Woodside considers the adopted controls appropriate to manage the impacts of these discharges to a level that is broadly acceptable.</p> <p>In the context of Section 270(3)(e) and (f) of the OPGGS Act, impacts to benthic habitats are of an acceptable level given:</p> <ul style="list-style-type: none"> • principles of ESD have been considered during the assessment of decommissioning options (Section 3) and no significant adverse impacts will occur to any natural resource • impacts and risks to natural resources or from damage to the seabed or subsoil are demonstrated to be reduced to ALARP • international and domestic requirements that apply to the activity will be complied with.

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 7</p> <p>No impact to water quality or marine biota greater than a consequence level of E³² from discharge of grit, flocculant, cement and cementing fluid, displacement fluids and annulus fluids during the Petroleum Activities Program.</p>	<p>C 7.1</p> <p>Fluids and additives planned to be used and intended or likely to be discharged to the marine environment will have an environmental assessment completed before use.</p>	<p>PS 7.1</p> <p>All chemicals (excluding legacy chemicals that may be present in the wellbore) intended or likely to be discharged to the marine environment are reduced to ALARP using the chemical assessment process.</p>	<p>MC 7.1.1</p> <p>Records demonstrate chemical selection, assessment and approval process for selecting chemicals is followed.</p>
	<p>C 7.2</p> <p>Installation of environment plug for wells containing residual NWBM</p>	<p>PS 7.2</p> <p>Prior to removal of the Lambert-5ST1, Balnaves Deep-1 and Wanaeae-4 wellheads, a cement plug will be installed in the well annulus.</p>	<p>MC 7.2.1</p> <p>Records confirm plug was installed have occurred.</p>

³² Defined as 'Slight, short-term impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes'.

7.7.7 Routine Light Emissions: External Lighting on Project Vessels

Context														
Project Vessels – Section 4.8				Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Routine light emissions from project vessels within the Operational Areas						X		A	F	-	-	GP	Broadly acceptable	EPO ₈
Description of Source of Impact														
<p>Routine light emissions include light sources that alter the ambient light conditions in an environment. Project vessels will routinely use external lighting to navigate and conduct safe operations at night throughout the Petroleum Activities Program. External light emissions from project vessels are typically managed to maintain good night vision for crew members. Vessel lighting will also be used to communicate the vessel’s presence to other marine users (as in, navigation and warning lights). Lighting is required for safely operating project vessels and cannot reasonably be eliminated.</p> <p>One to two vessels will be present within each Operational Area for up to ten days. The vessels that may be required for the Petroleum Activities Program in the Operational Areas are outlined in Section 4.8. External lighting is located on the vessel decks, with most external lighting directed towards working areas such as the main decks.</p> <p>Historically, vessels used a combination of high-pressure sodium, fluorescent, metal halide and mercury vapour lights. However, recent advances in light-emitting diode technology have seen a switch to this more efficient and cost-effective technology. Since the project vessels have not yet been contracted, the specific lighting design is unknown but is expected to comprise any or a combination of the light types mentioned above.</p> <p>Lighting from vessels may appear as a direct light source from an unshielded lamp, with direct line of sight to the observer or through sky glow. Direct lighting falling upon a surface is referred to as light spill. Sky glow is the diffuse glow caused by light that is screened from view, but through reflection and refraction creates a glow in the atmosphere. The distance at which direct light and sky glow may be visible from the source depends on the vessel lighting and environmental conditions.</p>														

Impact Assessment
Potential Impacts to Environmental Values
<p>Marine Fauna</p> <p>Receptors that have important habitat within a 20 km buffer of the Operational Areas were considered for the impact assessment, based on recommendations of the National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds (NLPG) (Commonwealth of Australia, 2020). The 20 km threshold provides a precautionary limit, based on observed effects of sky glow on marine turtle hatchlings demonstrated to occur at 15 to 18 km and fledgling seabirds grounded in response to artificial light 15 km away (Commonwealth of Australia, 2020).</p> <p>Light emissions can affect fauna in two main ways:</p>

- Intrinsic behaviour: Many species are adapted to natural levels of lighting and the natural changes associated with the day and night cycle as well as the night-time phases of the moon. However, artificial lighting has the potential to create a constant level of light at night that can override light cues directing behaviours.
- Orientation: Species such as marine turtles and birds may also use lighting from natural sources to orient themselves in a certain direction at night. If an artificial light source is brighter than a natural source, the artificial light may override natural cues, leading to disorientation.

The fauna within and immediately adjacent to the Operational Areas are predominantly pelagic fish and zooplankton, with a low abundance of transient species such as marine turtles, whale sharks, cetaceans and migratory shorebirds and seabirds.

Marine Turtles – Hatchlings

The nearest nesting site exceeds the 20 km buffer set by the NLPG (approximately 40 km to Middle Island (Balnaves Deep-1) for green turtles; approximately 45 km to Montebello Islands (Balnaves Deep-1) for hawksbill turtles; approximately 50 km to Thevenard Island (Julimar South East-1) for flatback turtles; and approximately 175 km to Murion Islands (Balnaves Deep-1) for loggerhead turtles); therefore, sky glow and light spill from project vessels will not reach any nesting beach. At this distance, the density of hatchlings is expected to have declined, reducing the likelihood of individuals encountering the project vessels. Additionally, given the distance from the nearest turtle nesting beaches, hatchlings will not be undertaking nearshore dispersal, but moving more passively in their pelagic phase where light cues may be less important.

Any impacts to hatchling turtles from artificial light will be limited to possible short-term behavioural impacts to isolated individual hatchlings offshore, with no lasting effect to the species.

Marine Turtle – Adults

Although individuals undertaking behaviours such as internesting, migration, mating (adults) or foraging (adults and pelagic juveniles) may occur within the Operational Areas, marine turtles do not use light cues to guide these behaviours. Furthermore, there is no evidence, published or anecdotal, to suggest internesting, mating, foraging or migrating turtles are impacted by light from offshore vessels. As such, light emissions from the vessels are unlikely to result in displacement of, or behavioural changes to, individuals in these life stages (Pendoley Environmental, 2020). Considering the distance to the nearest nesting beaches (more than 100 km), impacts to nesting marine turtles are not expected.

Although 17 wellhead Operational Areas overlap the flatback turtle internesting BIA and nine overlap Habitat Critical internesting buffer, given the water depths, the Operational Areas do not support suitable internesting habitat for this species. The presence of marine turtles in the Operational Areas is likely to be limited to individuals transiting the area. As such, light emissions from project vessels are unlikely to result in more than localised behavioural disturbance to isolated transient individuals, with no lasting effect to the species.

Seabirds and Migratory Shorebirds

Artificial lighting can attract and disorient seabird species, resulting in species behavioural changes (such as circling light sources or disrupted foraging), injury or mortality near the light source as a result of collision (Longcore and Rich, 2004; Gaston *et al.*, 2014). The Operational Areas may be occasionally visited by seabirds and migratory shorebirds; however, there is no emergent land that could be used for roosting or nesting habitat within the Operational Areas. A breeding BIA for wedge-tailed shearwater overlaps 21 Operational Areas (Julimar South East-1, Julimar East-1, Balnaves Deep-1, Grange-1, Brunello-1ST1, Brulimar-1, Lady Nora-2, Lowendal-1, Haycock-1, Dixon-1, Rankin-1, Dockrell-1, Tidepole-1, Goodwyn-3, Madeleine-1, Wanaea-4, Walcott-1, Cossack-1, Angel-3, Angel-2, Angel-1 and Lambert-5ST1). No rookeries for this species occur within 20 km of an Operational Area and, therefore, impacts to adults and fledglings at the colony are not expected. Wedge-tailed shearwaters, like other Procellariiforms, have a nocturnal component to their life history, making them vulnerable to artificial light, unlike diurnal seabirds (such as terns). Fledglings are most vulnerable to disorientation from artificial light, though adults have been found to be attracted to vessel lighting (Advisian, 2022). Adults foraging in the BIA and recently fledged young may be attracted to artificial light associated with the project vessels and, in the worst case, may result in individuals grounding on the vessels. There are very few records of nocturnal seabirds grounding on Woodside's facilities over the last 18 years and none resulted in injury to or mortality of the individual (Advisian, 2022). Implementation of the Offshore Seabird Management Plan will ensure that in the event large numbers of nocturnal seabirds, including wedge-tailed shearwaters, are interacting with project vessels, the adaptive management process will prevent population level impacts from occurring.

The nearest shoreline is on the Montebello Islands, located 49 km from the Balnaves Deep-1 Operational Area. Since all 36 Operational Areas lie within the East Asian Australian Flyway for migratory shorebirds, individuals may migrate through the area, but due to the lack of suitable stopover features, large numbers are not expected.

The risks associated with collision from seabirds and shorebirds attracted to the light is considered to be low, given the duration of the activities and the expected abundance and habitat use of individuals within the Operational Areas. Impacts are expected to be limited to temporary behavioural disturbance to individuals, with no lasting effect or displacement from important habitat.

Other Marine Fauna

Lighting from project vessel activities in the Operational Areas may result in the localised aggregation of fish around the vessel. These aggregations of fish due to light are considered localised and restricted to the duration of activities

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(ten days). Krill or plankton may also aggregate around the source of light. These aggregations of fish, krill or plankton would be confined to a small area. Based on the short duration and localised nature of the Petroleum Activities Program, these aggregations are not expected to attract any marine mammals.

Cultural Values and Heritage

Through consultation and review of available literature (Section 5.6.1), Woodside understands that marine fauna that may be affected by light emissions, such as turtles and plankton, are culturally important to Traditional Custodians. Traditional Custodians value these species both tangibly as well intangibly as they can be considered a resource or linked to songlines and dreaming stories. Traditional Custodians also have connection to many marine species through kinship and totemic systems; an individual may have obligation to care for a species to which they are kin. Traditional Custodians may also have a cultural obligation to care for the environmental values of Sea Country.

For example, activities that impact turtle populations and their marine environment may have an indirect impact on some Indigenous communities if they deplete hunting areas and threaten local food security (Delisle et al. 2018:251). Inter-generational transmission of cultural knowledge (including songlines) relating to marine reptiles may be impacted where changes results in reduced sightings (e.g., through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group’s intangible cultural heritage (UNESCO 2003).

As described in the assessment of impacts to marine fauna (above) potential impacts to marine fauna are predicted to be at an individual level, which are not considered to be ecologically significant at a population level. Impacts will not occur to significant proportions of the populations of the species, nor result in a decrease of the quality of the habitat such that the extent of these species is likely to decline. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

Cumulative Impacts

Cumulative effects from the activity and from other activities conducted in the vicinity are not expected, due to the short-term nature of the operations and the low light levels generated.

Since removal of each wellhead and associated infrastructure will be conducted sequentially, rather than concurrently, and given the low-level impacts expected, cumulative impacts to receptors from light emissions are not expected.

Summary of Potential Impacts to Environmental Values(s)

Light emissions from project vessels will not result in an impact greater than a localised and temporary disturbance to marine fauna in the vicinity of the Operational Areas, with no lasting effect to any species (in other words, Environmental Impact – F).

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³³	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
None identified.				
Good Practice				
Lighting will be limited to the minimum required for navigational and safety requirements, with the exception of emergency events	F: Yes. Lighting is typically appropriate for navigation and safety. CS: Minimal cost sacrifice – usual mode of operation.	Limiting light during the Petroleum Activities Program will minimise potential for light attraction and vessel interaction with seabirds.	While the control does not result in reduction of impacts, it is good practice and not at significant cost.	Yes C.8.1
Implement the Offshore Seabird Management Plan, including: <ul style="list-style-type: none"> Standardisation and maintenance of record keeping and reporting of seabird interactions. Procedures on seabird intervention, care and management 	F: Yes; however, a minimum level of lighting is required on vessels for safety. CS: Costs associated with implementation.	Reduction in net light emissions from the vessels reducing the likelihood of attracting nocturnal seabirds. Adaptive management framework outlined in the Offshore Seabird Management Plan will prevent population level impacts from	Benefit outweighs cost, given the low costs in implementation and potential benefits in providing certainty that population level impacts to nocturnal	Yes C.8.2

³³ Qualitative measure

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³³	Benefit/Reduction in Impact	Proportionality	Control Adopted
Regulatory reporting requirements for seabirds (unintentional death of or injury to seabirds that constitute MNES) <ul style="list-style-type: none"> A scalable adaptive management process should negate light impacts to nocturnal seabirds be detected. 		occurring, and the care and release protocol will reduce impacts at the individual level.	seabirds will not occur.	
Good Practice				
None identified.				
Professional Judgement – Eliminate				
Restrict the Petroleum Activities Program to daylight hours, eliminating the need for external work lights.	F: Yes. Restricting the Petroleum Activities Program to daylight hours is technically feasible, although not considered to be reasonably practicable. CS: Significant cost sacrifice. Limiting the Petroleum Activities Program to daylight hours would significantly increase the duration of the Petroleum Activities Program, and therefore result in additional impacts from other sources (such as interference with other marine users, noise, vessel discharges, or potential for unplanned risks.	Negligible reduction in consequence, given the duration and nature of the activity.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit.	No
Substitute external lighting with light sources designed to minimise impacts to seabirds (as per NLPG 2020 management actions): use flashing or intermittent lights instead of fixed beam <ul style="list-style-type: none"> use motion sensors to turn lights on only when needed use luminaires with spectral content appropriate for the species present avoid high-intensity light of any colour. 	F: Yes. Replacement of external lighting with lighting appropriate for turtles is technically feasible, although is not considered to be practicable. CS: Significant cost sacrifice. The retrofitting of all external lighting on vessels would result in considerable cost and time expenditure. Considerable logistical effort to source sufficient inventory of the range of light types onboard vessels.	Implementation of the Offshore Seabird Management Plan, particularly the adaptive management framework, will ensure population level impacts to nocturnal seabirds will not occur.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit. The cost/sacrifice outweighs the benefit gained.	No
Professional Judgement – Substitute				
None identified.				

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³³	Benefit/Reduction in Impact	Proportionality	Control Adopted
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the potential impacts from routine light emissions from project vessels within the Operational Areas to be ALARP. This includes consideration of the nature of light emissions for the duration of the Petroleum Activities Program, and the requirements for external lighting for safe operations. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts are considered ALARP.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The impact assessment has determined that routine light emissions from project vessels may result in impacts limited to temporary behavioural disturbance to marine fauna within a localised area and with no lasting effect on any species. Further opportunities to reduce the impacts have been investigated above. Regard has been given to relevant conservation advice and wildlife conservation plans during the assessment of potential impacts and the NLPG were taken into consideration during the impact evaluation.</p> <p>No concerns or objections regarding light emissions from project vessels have been raised by relevant persons. However, marine species such as turtles and plankton have been identified, during consultation for this EP as well as for other Woodside activities, as a cultural value for Traditional Custodians. Given impacts will be temporary and minor behavioural disturbance to individuals and no impacts on a population level will occur, cultural values and intangible cultural heritage associated with these species are expected to be maintained.</p> <p>The potential impacts are consistent with good oil-field practice/industry best practice and are considered to be broadly acceptable in its current state. Therefore, Woodside considers standard operations appropriate to manage the impacts and risks of routine light emissions to a level that is broadly acceptable.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 8</p> <p>No impacts to marine fauna greater than a consequence level of F³⁴ from artificial light emissions associated with the Petroleum Activities Program</p>	<p>C 8.1</p> <p>Lighting will be limited to the minimum required for navigational and safety requirements, with the exception of emergency events.</p>	<p>PS 8.1</p> <p>Lighting limited to that required for safe work/navigation.</p>	<p>MC 8.1.1</p> <p>Inspection verifies no excessive light being used beyond that required for safe work/navigation</p>
		<p>PS 8.2</p> <p>Project vessels will use available block-out blinds on portholes and windows not necessary for safety and/or navigation when operating at night.</p>	<p>MC 8.1.2</p> <p>Vessel contractor procedures include requirement to use available block-out blinds not necessary for safety and/or navigation when operating at night.</p>

³⁴ Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors'.

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>C 8.2</p> <p>Implement the Offshore Seabird Management Plan, including:</p> <ul style="list-style-type: none"> • Standardisation and maintenance of record keeping and reporting of seabird interactions. • Procedures on seabird intervention, care and management <p>Regulatory reporting requirements for seabirds (unintentional death of or injury to seabirds that constitute MNES)</p> <ul style="list-style-type: none"> • A scalable adaptive management process should negative light impacts to nocturnal seabirds be detected. 	<p>PS 8.2</p> <p>Implementation of the Seabird Management Plan to minimise potential for light attraction.</p>	<p>MC 8.2.1</p> <p>Records demonstrate Seabird Management Plan implemented</p>

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7.8 Unplanned Activities (Accidents, Incidents, Emergency Situations)

7.8.1 Quantitative Spill Risk Assessment Methodology

Quantitative hydrocarbon spill modelling was undertaken by RPS (2022), on behalf of Woodside, using a 3D hydrocarbon spill trajectory and weathering model, SIMAP (Spill Impact Mapping and Analysis Program), which is designed to simulate the transport, spreading and weathering of specific hydrocarbon types under the influence of changing meteorological and oceanographic forces.

A stochastic modelling scheme was followed in this study, whereby SIMAP was applied to repeatedly simulate the defined credible spill scenarios using different samples of current and wind data. These data samples were selected randomly from an historic time-series of wind and current data representative of the study area. Results of the replicate simulations were then statistically analysed and mapped to define contours of percentage probability of contact at identified thresholds around the hydrocarbon release point.

The model simulates surface releases and uses the unique physical and chemical properties of a hydrocarbon type to calculate rates of evaporation and viscosity change, including the tendency to form OIW emulsions. Moreover, the unique transport and dispersion of surface slicks and in-water components (entrained and dissolved) are modelled separately. Thus, the model can be used to understand the wider potential consequences of a spill, including direct contact of hydrocarbons due to surface slicks (floating hydrocarbon) and exposure of organisms to entrained and dissolved aromatic hydrocarbons in the water column.

During each simulation, the SIMAP model records the location (by latitude, longitude and depth) of each of the particles (representing a given mass of hydrocarbons) on or in the water column, at regular time steps. For any particles that contact a shoreline, the model records the accumulation of hydrocarbon mass that arrives on each section of shoreline over time, less any mass that is lost to evaporation and subsequent removal by current and wind forces.

The collective records from all simulations are then analysed by dividing the study region into a 3D grid. For surface hydrocarbons (floating oil), the sum of the mass in all hydrocarbon particles located within a grid cell, divided by the area of the cell, provides hydrocarbon concentration estimates in that grid cell at each model output time interval. For entrained and dissolved aromatic hydrocarbon particles, concentrations are calculated at each time step by summing the mass of particles within a grid cell and dividing by the volume of the grid cell. The process is also subject to the application of spreading filters that represent the expected mass distribution of each distinct particle. The concentrations of hydrocarbons calculated for each grid cell, at each time step, are then analysed to determine whether concentration estimates exceed defined threshold concentrations.

All hydrocarbon spill modelling assessments undertaken by RPS undergo initial sensitivity modelling to determine appropriate time to add to the simulation after the cessation of the spill. The amount of time following the spill is based on the time required for the modelled concentrations to practically drop below threshold concentrations anywhere in the model domain in the test cases. This assessment is done by post-processing the sensitivity test results and analysing time-series of median and maximum concentrations in the water and on the surface.

7.8.1.1 Hydrocarbon Characteristics

As part of the risk identification process, Woodside identified the range of credible hydrocarbon spill scenarios that may occur from the Petroleum Activities Program. These scenarios are considered in the risk assessments of accidental hydrocarbon spill scenarios (refer to Section 7.8.2).

The characteristics of the hydrocarbons, used as the basis for the modelling studies used to inform the assessment, are summarised in Table 7-4.

Table 7-4: Hydrocarbon characteristics

Hydrocarbon Type		Marine diesel	
Initial Density (g/cm³)		0.829 @ 25 °C	
Viscosity (cP)		4.0 @ 25 °C	
Component BP (°C)		% of total	% aromatics
Volatiles <180 °C	Non-Persistent	6	1.8
Semi volatiles 180 to 265 °C		34.6	1
Low Volatility (%) 265 to 380 °C		54.4	0.2
Residual (%) >380 °C	Persistent	5	-
Aromatic (%) of whole oil <380 °C BP		3	-

7.8.1.2 Environment that May Be Affected and Hydrocarbon Contact Thresholds

The outputs of the quantitative hydrocarbon spill modelling were used to assess the environmental consequence, if a credible hydrocarbon spill scenario occurred, in terms of delineating which areas of the marine environment could be exposed to hydrocarbon levels exceeding hydrocarbon threshold concentrations. The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations modelled is defined as the EMBA. Due to the number and spatial distribution of the Operational Areas, and the location of the three spill release locations, the spill modelling outputs were extrapolated to encompass all Operational Areas to define the largest possible EMBA.

As the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean transport mechanisms, the EMBA combines the potential spatial extent of the different fates. The EMBA also includes areas that are predicted to experience shoreline contact with hydrocarbons above threshold concentrations.

The EMBA covers a larger area than the area that is likely to be affected during any single spill event, as the model was run for a variety of weather and metocean conditions, and the EMBA represents the total extent of all the locations where hydrocarbon thresholds could be exceeded from all modelling runs. Furthermore, as the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean transport mechanism, a different EMBA is presented for each fate. These EMBA's together define the spatial extent for the existing environment, which is described in Section 5. Hydrocarbon contact below the defined thresholds may occur outside the EMBA and socio-cultural EMBA; however, the effects of these low exposure values will be limited to temporary exceedance of water quality triggers. The area within which this may occur in the event of a worst-case credible spill is presented in Appendix D: Figure 5-1.

The spill modelling outputs are presented as areas that meet threshold concentrations for surface, entrained and dissolved hydrocarbons for the modelled scenarios. Surface spill concentrations are expressed as grams per square metre (g/m²), with entrained and dissolved aromatic hydrocarbon concentrations expressed as parts per billion (ppb). A conservative approach – adopting accepted contact thresholds that are documented to impact the marine environment – was used to define the EMBA.

Hydrocarbon thresholds are presented Table 7-5 and described in the next subsections.

Table 7-5: Summary of thresholds applied to the quantitative hydrocarbon spill risk modelling results

Hydrocarbon Fate	Units	EMBA	Socio-cultural EMBA
Surface Hydrocarbons	g/m ²	10	1

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Hydrocarbon Fate	Units	EMBA	Socio-cultural EMBA
Shoreline hydrocarbons	g/m ²	100	10
Entrained hydrocarbons	ppb	100	100
Dissolved aromatic hydrocarbons	ppb	50	50

7.8.1.3 Scientific Monitoring

A planning area for scientific monitoring is also described in the Oil Spill Preparedness and Response Mitigation Assessment (Appendix D). This planning area has been defined with reference to the low exposure entrained value of 10 ppb detailed in NOPSEMA Bulletin #1 Oil Spill Modelling (2019). This low exposure threshold is based on the potential for exceeding water quality triggers.

A scientific monitoring program would be activated following a Level 2 or 3 unplanned hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors. This would consider receptors at risk (ecological and socio-economic) for the entire predicted EMBA and in particular, any identified pre-emptive baseline areas or the worst-case credible spill scenario(s) or other identified unplanned hydrocarbon releases associated with the operational activities.

7.8.2 Accidental Hydrocarbon Release: Vessel Collision

Context														
Project Vessels – Section 4.8			Physical Environment – Section 5.1.4 Biological Environment – Section 5.5 Socio-economic Environment – Section 5.6				Stakeholder Consultation – Section 6							
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcome
Hydrocarbon release to the marine environment due to a vessel collision (between project vessels or third-party vessels)			X		X	X	X	A	D	1	M	LCS GP	Acceptable	EPO 1 EPO 2 EPO 9
Description of Source of Risk														
<p>Background</p> <p>Offshore project vessels can have a fuel capacity in excess of 1000 m³ that is distributed into multiple isolated tanks. Individual marine diesel tanks are typically less than 500 m³ in volume; however, for the purposes of a conservative indication of the risks associated with a vessel collision for the Petroleum Activities Program, Woodside has assumed a largest marine diesel tank volume of 500 m³ for a project vessel.</p> <p>One general support vessel may accompany the offshore support vessels during the Petroleum Activities Program. The marine diesel storage capacity of a support vessel can also be in the order of 1000 m³ (total), distributed into multiple isolated tanks, typically located mid-ship, and can range in typical size of 22 to 105 m³.</p> <p>In the unlikely event of a vessel collision involving a project vessel during the Petroleum Activities Program, the vessel will have the capability to pump marine diesel from a ruptured tank to a tank with spare volume in order to reduce the potential volume of fuel released to the environment.</p> <p>Project vessels (offshore support vessels and general support vessel(s)) will be present in the Operational Areas for the duration of the Petroleum Activities Program. This presence in the area will result in a navigational hazard for other marine users within the immediate area of the vessel (as discussed in Section 7.7.1).</p> <p>Industry Experience</p> <p>Registered vessels or foreign flag vessels in Australian waters are required to report events to the Australian Transport Safety Bureau (ATSB), AMSA or Australian Search and Rescue.</p> <p>From a review of the ATSB marine safety and investigation reports, one vessel collision occurred in 2011–2012 that resulted in a spill of 25 to 30 L of oil into the marine environment as a result of a collision between a tug and activity support vessel off Barrow Island. Two other vessel collisions occurred in 2010, one in the port of Dampier, where an activity support vessel collided with a barge being towed. Minor damage was reported and no significant injury to personnel or pollution occurred. The second 2010 vessel collision involved a vessel under pilot control in port connecting with a vessel alongside a wharf, causing it to sink. No reported pollution resulted from the sunken vessel. These incidents demonstrate the likelihood of only minor volumes of hydrocarbons being released during the highly unlikely event of a vessel collision occurring.</p> <p>From 2010 to 2011, the ATSB's annual publication defines the individual safety action factors identified in marine accidents and incidents: 42% related to navigation action (2011). Of those, 15% related to poor communication and 42% related to poor monitoring, checking and documentation. The majority of these related to the grounding instances.</p> <p>Credible Spill Scenario</p> <p>For a vessel collision to result in the worst-case scenario of a hydrocarbon spill from the vessel potentially impacting an environmental receptor, several factors must align as follows:</p>														

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- The identified causes of vessel interaction must result in a collision.
- The collision must have enough force to penetrate the vessel hull.
- The collision must be in the exact location of the fuel tank.
- The fuel tank must be full, or at least of volume which is higher than the point of penetration.

The probability of the chain of events described above aligning, to result in a breach of fuel tanks resulting in a spill that could potentially affect the marine environment, is considered remote. Given the offshore location of the Operational Areas, vessel grounding is not considered a credible risk.

The environmental risk analysis and evaluation undertaken identified and assessed a range of potential scenarios that could result in a loss of vessel structural integrity, resulting in damage to fuel storage tank(s) and a loss of marine diesel to the marine environment. These scenarios are summarised in Table 7-6. The scenarios consider damage to single and multiple fuel storage tanks in the project vessels due to various combinations of vessel-to-vessel scenarios.

The scenarios considered comprised a collision of project vessels with each other or with a third-party vessel (in other words, commercial shipping, other petroleum-related vessels and commercial fishing vessels). The likelihood of a collision was assessed as being remote, given standard vessel operations and equipment in place to prevent collision at sea, the standby role of a support vessel (low vessel speed) and its operation in close proximity to an operational vessel, and the construction and placement of storage tanks. For the purposes of this assessment, a worst-case instantaneous loss of 500 m³ from a diesel tank has been considered.

Table 7-6: Assessment of potential vessel spill scenarios

Scenario	Hydrocarbon Volumes	Preventative and Mitigation Controls	Credibility	Max. Possible Volume Loss (m³)
Breach of support vessel fuel tanks due to collision with an offshore support vessel	Support vessel has multiple tanks typically ranging between 22 m ³ and 105 m ³ each.	Typically, double wall tanks which are located mid-ship (not bow or stern). Vessels are not anchored and steam at low speeds when relocating within the Operational Areas or providing standby cover. Normal maritime procedures would apply during such vessel movements.	Not Credible Collision between the offshore support vessel and general support vessel is highly unlikely. If it did occur, it is highly unlikely to result in a breach of support vessel fuel tank, given the slow vessel speeds (low energy contact from slow-moving vessel).	105 m ³
Breach of offshore support vessel fuel tanks due to collision with general support vessel	An offshore support vessel has multiple marine diesel tanks typically ranging between 22 m ³ and 500 m ³ each.	Typically, double wall tanks which are located mid-ship (not bow or stern). Vessels are not anchored and steam at low speeds when relocating within the Operational Areas or providing standby cover. Normal maritime procedures would apply during such vessel movements.	Not Credible Collision between the offshore support vessel and general support vessel is highly unlikely. If it did occur, it is highly unlikely to result in a breach of offshore support vessel fuel tank, given the slow vessel speeds (low energy contact from slow-moving vessel).	500 m ³

<p>Breach of fuel tanks due to project vessel collision with third-party vessel (including commercial shipping/fisheries)</p>	<p>A general support vessel has multiple tanks typically ranging between 22 m³ and 105 m³ each. An offshore support vessel has multiple marine diesel tanks typically ranging between 22 m³ and 500 m³ each.</p>	<p>Typically, double wall tanks which are located mid-ship (not bow or stern).</p>	<p>Credible Collision of a project vessel with a third-party vessel could potentially result in a release from a fuel tank.</p>	<p>500 m³</p>
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Quantitative Hydrocarbon Risk Assessment

Modelling was undertaken by RPS, on behalf of Woodside, to determine the fate of marine diesel released from a vessel collision within the Operational Areas, at three different locations: Balnaves Deep-1 (closest wellhead to Tryal Rocks), Angel-3 (closest wellhead to Glomar Shoals) and Lady Nora-2 (closest wellhead to Rankin Bank). The modelling assessed the extent of a marine diesel spill with a volume of 500 m³ for all seasons, using a historic sample of wind and current data in the region. A total of 200 simulations were modelled for each location (see Section 7.8.1), with each simulation tracked for 28 days.

Hydrocarbon Characteristics

Marine diesel is a mixture of both volatile and persistent hydrocarbons. Predicted weathering of marine diesel, based on typical conditions in the region, indicates approximately 25% by mass would be expected to evaporate over the first day or two (refer to Figure 7-1). After this time, the majority of the remaining hydrocarbon is entrained into the upper water column. In calm conditions, entrained hydrocarbons are likely to resurface. Seven days following the spill, approximately 25% would evaporate, approximately 60% would entrain, approximately 15% would decay and a small proportion would be dissolved (refer to Figure 7-1).

Given the environmental conditions experienced in the Operational Areas, marine diesel is expected to undergo rapid spreading and this, together with evaporative loss, is likely to result in a rapid dissipation of the spill. Marine diesel distillates tend not to form emulsions at the temperatures found in the region. The characteristics of the marine diesel used in the modelling are provided in Table 7-4.

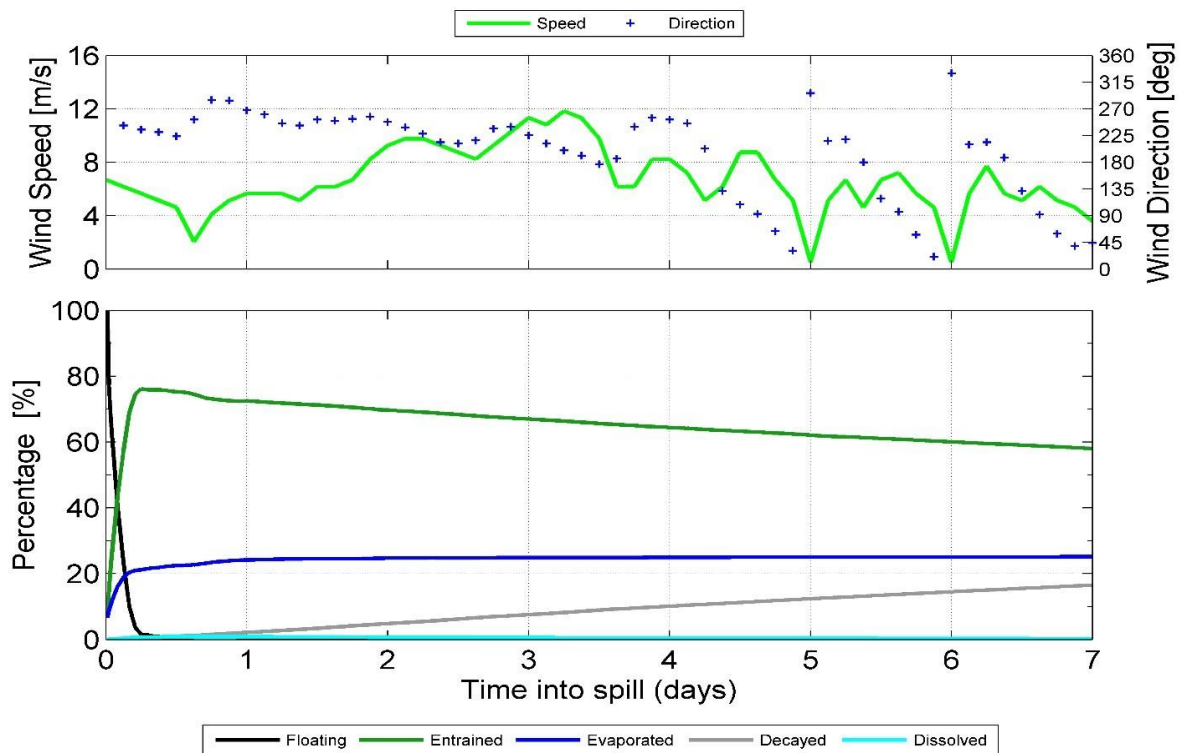


Figure 7-1: Proportional mass balance plot representing the weathering of marine diesel spilled onto the water surface as a one-off release (50 m³ over one hour) and subject to variable wind at 27 °C water temperature and 25 °C air temperature

Impact Assessment

Potential Impacts Overview

Environment that May Be Affected

The overall EMBA for the Petroleum Activities Program is based on stochastic modelling, which compiles data from 200 hypothetical worst-case spills were modelled for each location (see Section 7.8.1) under a variety of weather and metocean conditions (as described in Section 5.1.4). The worst-case distances and probabilities of contact to receptor locations have been chosen as a conservative approach.

As the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean transport mechanism, a different EMBA is discussed for each fate.

Surface Hydrocarbons

Quantitative hydrocarbon spill modelling results for surface hydrocarbons are shown in Table 7-7. The modelling indicates the spill would be localised and confined to open water, extending up to approximately 47 km (at or above the 10 g/m² impact threshold) from the release location.

A socio-cultural EMBA for surface hydrocarbons, which includes the threshold for visible surface hydrocarbons of 1 g/m², may extend up to approximately 77 km from the release site.

Entrained Hydrocarbons

Quantitative hydrocarbon spill modelling results for entrained hydrocarbons are shown in Table 7-7. If a vessel collision scenario occurred, the plume of entrained hydrocarbons would largely form down-current of the release location, with the trajectory dependent on the prevailing current conditions at the time. The modelling indicates locations exposed to entrained hydrocarbons at or above the threshold concentration of 100 ppb are restricted to offshore areas up to approximately 355 km from the release site. The modelling suggests that under variable wind conditions, it is more probable for larger proportions of oil to become entrained and undergo slower rates of decay, possibly even extending the potential area impacted.

In the event this vessel collision scenario occurred, the probability of contact by entrained oil at concentrations above 100 ppb is predicted to be approximately 37.5% at Montebello Australian Marine Park, 8.5% at Tryal Rocks, 3.5% at Barrow Island Marine Management Area and Marine Park and Muiron Islands Marine Management Area and 3% at Rankin Bank. There was also a low probability (1 to 2.5%) that entrained hydrocarbons above threshold concentrations (more than 100 ppb) would be detected at Barrow Island, the Montebello Islands and Montebello Islands Marine Park (State), Ningaloo Australian Marine Park, Ningaloo Coast World Heritage Area and Ningaloo Marine Park (State), Muiron Islands, Penguin Bank and Southern Pilbara Islands.

Dissolved Hydrocarbons

Quantitative hydrocarbon spill modelling results for dissolved hydrocarbons are shown in Table 7-7. The modelling indicates locations exposed to dissolved hydrocarbons at or above the threshold concentration of 50 ppb are restricted to offshore areas up to approximately 208 km from the release site. There was approximately 7.5% and 3.5% probability respectively that dissolved hydrocarbons above threshold concentrations (more than 50 ppb) would be detected at the Montebello Marine Park and Rankin Bank.

Accumulated Hydrocarbons

The worst-case accumulated concentration is predicted as 7.8 g/m² at the Barrow Island and Boodie Island receptors, with 7.6 g/m² at the Muiron Island receptors. The maximum accumulated volume (m³) along any shoreline was less than 1 m³ in all simulations.

Summary of Potential Impacts to Environmental Values

Table 7-7 presents the full extent of the EMBA; as in, the sensitive receptors and their locations that may be exposed to hydrocarbons (surface, entrained and dissolved) at or above the set threshold concentrations in the unlikely event of a marine diesel spill from a vessel collision during the Petroleum Activities Program. Some receptors included in Table 7-7 do not have a predicted probability of hydrocarbon contact due to extrapolation of the spill modelling results to encompass each Operational Area for defining the EMBA. Details of these receptors are outlined in Section 5. The potential biological and ecological impacts of an accidental hydrocarbon release as a result of a vessel collision during the Petroleum Activities Program are expected to have minor, short-term impacts to species and habitats, but not affecting ecosystem function, and are presented in detail in the next sections.

Table 7-7: Key receptor locations and sensitivities potentially contacted above impact thresholds by the vessel collision scenario with summary hydrocarbon spill contact (table cell values correspond to probability of contact [%])

Environmental setting	Location/name	Environmental, Social, Cultural, Heritage and Economic aspects presented as per the Environmental Risk Definitions (Woodside's Risk Management Procedure (WM0000PG10055394))																							Maximum predicted probability of hydrocarbon contact (>1% probability) ^[1]										
		Physical		Biological																	Socio-Economic and Cultural														
		Water Quality	Sediment Quality	Marine Primary Producers			Other Communities/Habitats					Protected Species							Other Species																
Open water – pristine	Marine sediment – pristine	Coral reef	Seagrass beds/macroalgae	Mangroves	Spawning/nursery areas	Open water – productivity/upwelling	Non biogenic coral reefs	Offshore filter feeders and/or deep-water benthic communities	Nearshore filter feeders	Sandy shores	Estuaries/tributaries/creeks/lagoons (including mudflats)	Rocky shores	Cetaceans – migratory whales	Cetaceans – dolphins and porpoises	Dugongs	Pinnipeds (sea lions and fur seals)	Marine turtles (including foraging and interesting areas and significant nesting beaches)	Seasnakes	Whale sharks	Sharks and rays	Sea birds and/or migratory shorebirds	Pelagic fish populations	Resident/demersal fish	Fisheries – commercial	Fisheries – traditional	Tourism and recreation	Protected areas/heritage – European and Indigenous/shirewrecks	Offshore oil and gas infrastructure (topside and subsea)	Surface hydrocarbon (≥1 g/m ²)	Surface hydrocarbon (≥10 g/m ²)	Entrained hydrocarbon (≥100 ppb)	Dissolved aromatic hydrocarbon (≥50 ppb)			
Coastal Australian Marine Lines	Gascoyne AMP	✓	✓				✓						✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓							
	Montebello AMP	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓			4	1.5	37.5	7.5		
	Ningaloo AMP	✓	✓				✓							✓	✓			✓		✓	✓	✓	✓			✓	✓								
Coastal Australian Marine Lines	Exmouth	✓	✓	✓	✓	✓	✓			✓			✓	✓	✓		✓	✓		✓	✓	✓	✓			✓									
Islands	Barrow Island	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓							
	Southern Pilbara Islands	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓							
	Montebello Islands (including Boodie Island and Middle Island)	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓								
	Muiron Islands	✓	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓								
Marine Parks (State)	Barrow Island MP (State)	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓							
	Barrow Island MMA	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓	✓							
	Montebello Island MP	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓								
	Muiron Islands MMA	✓	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓								
	Ningaloo Coast World Heritage Site	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓			✓	✓								
	Ningaloo MP (State)	✓	✓	✓	✓		✓	✓		✓				✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓								

Environmental setting	Location/name	Environmental, Social, Cultural, Heritage and Economic aspects presented as per the Environmental Risk Definitions (Woodside's Risk Management Procedure (WM0000PG10055394))																							Maximum predicted probability of hydrocarbon contact (>1% probability) ^[1]							
		Physical		Biological																	Socio-Economic and Cultural											
		Water Quality	Sediment Quality	Marine Primary Producers			Other Communities/Habitats					Protected Species							Other Species													
Open water – pristine	Marine sediment – pristine	Coral reef	Seagrass beds/macroalgae	Mangroves	Spawning/nursery areas	Open water – productivity/upwelling	Non biogenic coral reefs	Offshore filter feeders and/or deep-water benthic communities	Near shore filter feeders	Sandy shores	Estuaries/tributaries/creeks/lagoons (including mudflats)	Rocky shores	Cetaceans – migratory whales	Cetaceans – dolphins and porpoises	Dugongs	Pinnipeds (sea lions and fur seals)	Marine turtles (including foraging and interesting areas and significant nesting beaches)	Seasnakes	Whale sharks	Sharks and rays	Sea birds and/or migratory shorebirds	Pelagic fish populations	Resident/demersal fish	Fisheries – commercial	Fisheries – traditional	Tourism and recreation	Protected areas/heritage – European and Indigenous/shutwrecks	Offshore oil and gas infrastructure (topside and subsea)	Surface hydrocarbon (≥1 g/m ²)	Surface hydrocarbon (≥10 g/m ²)	Entrained hydrocarbon (≥100 ppb)	Dissolved aromatic hydrocarbon (≥50 ppb)
Nature Reserves	Boodie Double Middle Islands Nature Reserve	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓			✓	✓	✓	✓	✓	✓			✓	✓			-	-	1	-
Reefs, shoals and banks	Montebello Shoals	✓	✓	✓		✓	✓			✓			✓	✓			✓	✓	✓	✓	✓	✓	✓						-	-	1	-
	Ningaloo Reef	✓	✓	✓	✓	✓	✓			✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓			-	-	1	-
	Penguin Bank	✓	✓	✓		✓	✓						✓	✓			✓	✓	✓	✓	✓	✓	✓	✓					-	-	2	-
	Poivre Reef	✓	✓	✓		✓	✓						✓	✓			✓	✓	✓	✓	✓	✓	✓	✓					-	-	1	-
	Tryal Rocks	✓	✓	✓		✓	✓						✓	✓			✓	✓	✓	✓	✓	✓	✓	✓					-	-	8.5	-
	Rankin Bank	✓	✓	✓		✓	✓		✓				✓	✓			✓	✓	✓	✓	✓	✓	✓	✓		✓		18.5	14	3	3.5	
	Outtrim Patches	✓	✓	✓		✓	✓						✓	✓			✓	✓	✓	✓	✓	✓	✓	✓					-	-	1	--
	Rosily Shoals	✓	✓	✓		✓	✓						✓	✓			✓	✓	✓	✓	✓	✓	✓	✓					-	-	1	-

[1] Note: the probability is based on stochastic modelling of 200 hypothetical worst-case spills were modelled for each scenario (see section 7.8.1) under a variety of weather and metocean conditions.

Summary of Potential Impacts to Environmental Values(s)

Summary of potential impacts to protected species

Marine Mammals (cetaceans and dugongs)

Marine mammals that have direct physical contact with surface, entrained or dissolved aromatic hydrocarbons may suffer surface fouling, ingestion of hydrocarbons (from prey, water and sediments), aspiration of oily water or droplets, and inhalation of toxic vapours (DWH Natural Resource Damage Assessment Trustees, 2016). This may result in the irritation of sensitive membranes, such as the eyes, mouth, digestive and respiratory tracts and organs, impairment of the immune system, neurological damage (Helm *et al.*, 2015), reproductive failure, adverse health effects (such as lung disease, poor body condition) and potentially mortality (DWH Natural Resource Damage Assessment Trustees, 2016). In a review of cetacean observations relating to a number of large-scale hydrocarbon spills, Geraci (1988) found little evidence of mortality associated with hydrocarbon spills. However, it was concluded that exposure to oil from the Deepwater Horizon resulted in increased mortality to cetaceans in the Gulf of Mexico (DWH Natural Resource Damage Assessment Trustees, 2016). Geraci (1988) did identify behavioural disturbance (as in, avoiding spilled hydrocarbons) in some instances for several species of cetacean, suggesting cetaceans have the ability to detect and avoid surface slicks. However, observations during spills have recorded larger whales (both mysticetes and odontocetes) and smaller delphinids travelling through and feeding in oil slicks. During the Deepwater Horizon spill, cetaceans were routinely seen swimming in surface slicks offshore (and nearshore) (Achingier Dias *et al.*, 2017).

Impacts to cetaceans depend on the exposure pathway, with exposure to entrained oil and surface slicks not expected to result in significant impacts due to the relatively volatile, non-persistent nature of the hydrocarbons. Direct toxic effects from external exposure are not expected to occur, although mucous membranes and eyes may become irritated. Indirect toxic effects, such as hydrocarbon ingestion through accumulation in prey, may occur. Baleen whales feeding within entrained hydrocarbon plumes may ingest hydrocarbons, potentially resulting in toxic effects (particularly fresh hydrocarbons near the release location).

Four threatened and migratory and seven migratory cetacean species were identified by a search of the EPBC Act Protected Matters Database as potentially occurring in the EMBA (refer to Section 5.3.3). The humpback whale migration (north and south) BIA intersects with the EMBA approximately 15 km to the south of the Dixon-1 Operational Area. Humpback whales migrate through the region from July to December each year. There is a calving/nursing/resting BIA located within the Exmouth Gulf approximately 195 km SSW from Julimar South East-1 Operational Area. The pygmy blue whale distribution, foraging and migration BIAs overlap with the EMBA. Pygmy blue whales are known to occur within the region during their northern migration from April to August and from October to January in the southern migration. The dugong was also identified by a search of the EPBC Act Protected Matters Database as potentially occurring in the EMBA (refer to Section 5.3). The dugong breeding, calving and foraging (high density) BIAs intersect with the EMBA around the Ningaloo Reef and Exmouth Gulf. The dugong is known to inhabit protected shallow coastal areas and feed on seagrass in waters less than 10 m. The presence of the species in the EMBA is expected to be limited to infrequent occurrences of individuals or small groups. Entrained hydrocarbons above threshold concentrations are predicted to reach a number of receptor locations where dugongs may occur, including Montebello AMP (37.5%), Barrow Island Marine Management Area and Marine Park (3.5%), Muiron Islands Marine Management Area (3.5%), Ningaloo Marine Park (1.5%), Ningaloo Coast World Heritage Area (2.5%) and Gascoyne AMP (1%).

A loss of marine diesel from a vessel collision could result in a disruption to individual marine mammals transiting the EMBA. Such disruption could include behavioural impacts (such as avoidance of impacted areas), sub-lethal biological effects (such as skin irritation, irritation from ingestion or inhalation) and, in rare circumstances, death. However, such disruptions or impacts are not predicted to impact on the overall population viability of the species within the EMBA.

Summary of Potential Impacts to Environmental Values(s)

Marine Reptiles

Marine Turtles

Adult sea turtles exhibit no avoidance behaviour when they encounter hydrocarbon slicks (National Oceanic and Atmospheric Administration, 2010). Contact with surface slicks, or entrained hydrocarbon, can therefore result in hydrocarbon adherence to body surfaces (Gagnon and Rawson, 2010), causing irritation of mucous membranes in the nose, throat and eyes, leading to inflammation and infection (National Oceanic and Atmospheric Administration, 2010). Oiling can also irritate and injure skin, which is most evident on pliable areas such as the neck and flippers (Lutcavage *et al.*, 1995). A stress response associated with this exposure pathway includes an increase in the production of white blood cells, and even a short exposure to hydrocarbons may affect the functioning of their salt gland (Lutcavage *et al.*, 1995).

Hydrocarbons in surface waters may also impact turtles when they surface to breathe and inhale toxic vapours. Their breathing pattern, involving large 'tidal' volumes and rapid inhalation before diving, results in direct exposure to petroleum vapours, which are the most toxic component of the hydrocarbon spill (Milton and Lutz, 2003). This can lead to lung damage and congestion, interstitial emphysema, inhalant pneumonia and neurological impairment (National Oceanic and Atmospheric Administration, 2010).

The Operational Areas overlap the flatback turtle interesting buffer BIA and habitat critical to the survival of flatback turtles BIA (further details provided in Section 5.3.2). The Operational Areas do not overlap with any other nesting BIAs. Due to the absence of potential nesting habitat and location offshore, the Operational Areas are unlikely to represent important habitat for marine turtles. The Montebello Islands and Barrow Island are the closest identified nesting sites, located approximately 40 km SSE of Balnaves Deep-1 Operational Area and approximately 50 km from the Julimar South East-1 Operational Area (Figure 5-5). It is also acknowledged the EMBA overlaps BIAs for several species of marine turtle (refer to Section 5.3.2). In the event of a vessel collision, a marine diesel spill may have a minor disruption to a small portion of the population; however, there is no anticipated threat to overall population viability.

Seasnakes

Impacts to seasnakes from direct contact with hydrocarbons are likely to result in similar physical effects to those recorded for marine turtles and may include potential damage to the dermis and irritation to mucus membranes of the eyes, nose and throat (ITOPF, 2011). They may also be impacted when they return to the surface to breathe and inhale the toxic vapours associated with the hydrocarbons, resulting in damage to their respiratory system.

In general, seasnakes frequent the waters of the continental shelf area around offshore islands and potentially submerged shoals (water depths less than 100 m) and, while individuals may be present in the EMBA (refer to Section 5.3.2), their abundance is not expected to be high, given the offshore location of the activity. Therefore, a hydrocarbon spill may have a minor disruption to a portion of the population but there is no threat to overall population viability.

Sharks and Rays

Impacts to sharks and rays may occur through direct contact with hydrocarbons and contaminate the tissues and internal organs, either through direct contact or via the food chain (consumption of prey). In the offshore environment, it is probable pelagic shark species are able to detect and avoid surface waters underneath hydrocarbon spills by swimming into deeper water or away from the affected areas. Therefore, any impact on sharks and rays are predicted to be minor and only a temporary disruption.

Hydrocarbon contact may affect whale sharks through ingestion (entrained or dissolved hydrocarbons), particularly if feeding. The whale shark foraging BIA overlaps with the EMBA. The species has a widespread distribution and a highly migratory nature. Subsequently, some individuals may transit through the EMBA. Whale sharks that have direct contact with hydrocarbons within the spill-affected area may be impacted but the consequences to migratory whale shark populations are likely to be minor.

Summary of Potential Impacts to Environmental Values(s)

Seabirds and/or Migratory Shorebirds

Seabirds generally do not exhibit avoidance behaviour to floating hydrocarbons. Physical contact of seabirds with surface slicks is by several exposure pathways, primarily immersion, ingestion and inhalation. Such contact with hydrocarbons may result in plumage fouling and hypothermia (loss of thermoregulation), decreased buoyancy and potential to drown, inability to fly or feed, anaemia, pneumonia and irritation of eyes, skin, nasal cavities and mouths (AMSA, 2013; International Petroleum Industry Environmental Conservation Association, 2004) and result in mortality due to oiling of feathers or ingestion of hydrocarbons. Longer-term exposure effects that may potentially impact seabird populations include a loss of reproductive success (loss of breeding adults) and malformation of eggs or chicks (AMSA, 2013).

The extent of the EMBA for a surface slick may result in impacts on feeding habitat; however, this is not expected to result in a threat to the overall population viability of seabirds or shorebirds. As outlined in Section 5.3.4, 43 species of seabirds or migratory shorebirds were identified by the PMST as potentially occurring within the EMBA, including 19 threatened species. The EMBA overlaps with a breeding BIA for three species and a breeding and foraging BIA for the wedge-tailed shearwater (see Table 5-13).

The maximum accumulated volume (m³) along any shoreline was less than 1 m³ in all simulations. Floating oil at concentrations equal to or greater than 1 g/m² are not predicted to contact any shoreline receptors. Therefore, no impacts are expected to important nesting habitat.

Summary of potential impacts to other habitats and communities

Benthic Fauna Communities

Benthic fauna communities associated with the submerged shoals and banks located in the EMBA (refer to Section 5.2) may be exposed to entrained hydrocarbons above threshold concentrations (more than 100 ppb). The modelling indicates locations exposed to entrained hydrocarbons at or above the threshold concentration of 100 ppb are restricted to offshore areas up to approximately 355 km from the release site. The quantitative spill risk assessment indicates there would be an 8.5%, 3% and 2% probability for entrained hydrocarbon concentrations (more than 100 ppb) to contact Tryal Rocks, Rankin Bank and Penguin Bank respectively (refer to Table 7-7). The probability of entrained hydrocarbons above threshold concentrations being detected at the Glomar Shoals feature was less than 0.5%.

Dissolved hydrocarbons above threshold concentrations (more than 50 ppb) are not expected to exceed distances of 208 km from the release site. There was approximately a 3.5% probability that dissolved hydrocarbons above threshold concentrations (more than 50 ppb) would be detected at Rankin Bank. The probability that dissolved hydrocarbons above threshold concentrations being detected at the Glomar Shoals feature was less than 0.5%. Therefore, submerged shoals and banks located in the EMBA are expected to have limited contact with entrained hydrocarbons and dissolved hydrocarbons. A loss of marine diesel from a vessel collision may result in a very small area of seabed and associated epifauna and infauna exposed to hydrocarbons.

Plankton and Fish Communities

There is potential for plankton communities to be impacted by a marine diesel spill where entrained hydrocarbons thresholds are exceeded; however, communities are expected to recover quickly (weeks or months) due to high population turnover (ITOPF, 2011). With the fast population turnover of open water plankton populations, it is considered any potential impacts will be low and temporary in nature.

Fish populations in the open water offshore environment of the Operational Areas and EMBA are highly mobile and can move away from a marine diesel spill. The spill-affected area will likely be confined to the upper surface layers. It is therefore unlikely fish populations would be exposed to hydrocarbon contamination. Fish populations are likely to be distributed over a wide geographical area, so impacts on populations or species level are considered to be negligible. Combined with these factors and the rapid dispersion of marine diesel, it is considered that any potential impacts will be negligible.

Summary of Potential Impacts to Environmental Values(s)

Spawning/Nursery Areas

Fish (and other commercially targeted taxa) in their early life stages (eggs, larvae and juveniles) are at their most vulnerable to lethal and sub-lethal impacts from exposure to hydrocarbons, particularly if a spill coincides with spawning seasons or if a spill reaches nursery areas close to the shore (such as seagrass and mangroves) (ITOPF, 2011). Fish spawning (including for commercially targeted species such as snapper and mackerel) mostly occurs in nearshore waters at certain times of the year; nearshore waters are also inhabited by higher numbers of juvenile fishes than offshore waters.

Modelling indicated that in the unlikely event of a marine diesel spill, there is a potential for entrained hydrocarbons to occur in the surface water layers above threshold concentrations in the shallow areas of the EMBA. This, and the potential for possible lower concentration exposure for dissolved aromatic hydrocarbons, has a negligible potential to result in lethal and sub-lethal impacts to a certain portion of fish larvae in affected areas, depending on concentration and duration of exposure and the inherent toxicity of the hydrocarbon. Losses of fish larvae in the worst affected areas are unlikely to be of major consequence to fish stocks compared with significantly larger losses through natural predation, and the likelihood that most nearshore areas would be exposed is low (as in, not all areas in the region would be affected). This is supported by a recent study in the Gulf of Mexico which used juvenile abundance data, from shallow-water seagrass meadows, as indices of the acute, population-level responses of young fishes to the Deepwater Horizon spill. Results indicated there was no change to the juvenile cohorts following this spill. Additionally, there were no significant post-spill shifts in community composition and structure, nor were there changes in biodiversity measures (Fodrie and Heck, 2011). Any impacts to spawning and nursery areas are expected to be slight and short-term, as would flow-on effects to adult fish stocks into which larvae are recruited.

Coral Reef Habitat

The quantitative spill risk assessment indicates the probability of contact by entrained hydrocarbons above threshold concentrations (more than 100 ppb) is predicted to be approximately 37.5% at Montebello AMP, 8.5% at Tryal Rocks, 3.5% at Barrow Island Marine Management Area and Marine Park and Muiron Islands Marine Management Area (refer to Table 7-7), and therefore exposure to subtidal coral reef habitat. Other coral reef receptors (detailed in Table 5-4) where entrained hydrocarbons above threshold concentrations may be detected include Rankin Bank (3%) and Ningaloo AMP and Ningaloo Coast World Heritage Area (2.5%). The probability of entrained hydrocarbons above threshold concentrations being detected at the Glomar Shoals feature was less than 0.5%.

Exposure to entrained hydrocarbons has the potential to result in lethal or sub-lethal toxic effects to corals and other sensitive sessile benthos within the upper water column, including subtidal corals. Mortality in a number of coral species is possible and would result in the reduction of coral cover and change in the composition of coral communities. Sub-lethal effects to corals may include polyp retraction, changes in feeding, bleaching (loss of zooxanthellae), increased mucous production resulting in reduced growth rates and impaired reproduction (Negri and Heyward, 2000). In the unlikely event of a marine diesel spill occurring at the time of coral spawning at potentially affected coral locations or in the general peak period of biological productivity, there is potential for a reduction in successful fertilisation and coral larval survival due to the sensitivity of coral early life stages to hydrocarbons (Negri and Heyward, 2000). Such impacts are likely to result in the failure of recruitment and settlement of new population cohorts. In addition, some non-coral species may be affected via direct contact with entrained hydrocarbons, resulting in sub-lethal impacts and in some cases mortality. This is with particular reference to the early life stages of coral reef animals (reef attached fishes and reef invertebrates), which can be relatively sensitive to hydrocarbon exposure. Coral reef fish are site-attached, have small home ranges and as reef residents they are at higher risk from hydrocarbon exposure than non-resident, more wide-ranging fish species. The exact impact on resident coral communities will entirely depend on actual hydrocarbon concentration, duration of exposure and water depth of the affected communities.

The modelling indicates locations exposed to entrained hydrocarbons at or above the threshold concentration of 100 ppb is likely (37.5%). The modelling also indicates locations exposed to dissolved hydrocarbons at or above the threshold concentration of 50 ppb is possible (7.5%). Therefore, reefs located in the EMBA are expected to have contact with entrained hydrocarbons and contact with dissolved hydrocarbons is also possible. If coral habitats within the EMBA are exposed to hydrocarbons, coral community live cover, structure and composition is predicted to reduce, manifested by loss of corals and associated sessile biota. Recovery of these impacted areas relies on coral larvae from neighbouring coral communities that have either not been affected or only partially impacted.

Summary of Potential Impacts to Environmental Values(s)

Key Ecological Features

KEFs potentially impacted by a marine diesel spill from a vessel collision event are:

- Ancient Coastline at 125 m Depth Contour
- Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula
- Commonwealth waters adjacent to Ningaloo Reef
- Continental Slope Demersal Fish Communities
- Glomar Shoals
- Exmouth Plateau.

These KEFs are largely described to identify the potential for increased biological productivity and, therefore, ecological significance.

The consequences of a marine diesel spill from a vessel collision may impact the values of the KEFs affected (for the values of each KEF, see Section 5.4). Potential impacts include the contamination of sediments, impacts to benthic fauna and associated impacts to demersal fish populations, and reduced biodiversity as described above and below. Most of the KEFs within the EMBA have relatively broad-scale distributions and are unlikely to be significantly impacted.

Summary of potential impacts to water quality

Water quality would be affected due to hydrocarbon contamination, which is described in terms of the biological effect concentrations. These are defined by the EMBA descriptions for each of entrained and dissolved hydrocarbon fates and their predicted extent (refer to Table 7-7). Furthermore, water quality is predicted to have minor long-term or significant short-term hydrocarbon contamination above background or national and international quality standards.

Summary of potential impacts to marine sediment quality

There is a small chance that entrained hydrocarbons (at or above the defined thresholds) may contact submerged shoals and banks in the region (refer to Table 7-7). Such hydrocarbon contact may lead to reduced marine sediment quality by several processes, such as adherence to sediment and deposition on seabed habitat.

Summary of potential impacts to protected areas (including AMPs)

The quantitative spill risk assessment results indicate the open water environment protected within the State and Commonwealth Marine Parks listed in Table 7-7 are likely to be affected by entrained and dissolved hydrocarbons, resulting in the actual or perceived contamination of protected areas. The probability of contact of entrained hydrocarbons to five protected areas includes Montebello AMP (37.5%), Barrow Island Marine Management Area and Marine Park (3.5%), Muiron Islands Marine Management Area (3.5%), Ningaloo AMP (2.5%) and Gascoyne AMP (1%). One protected area, the Montebello Marine Park, had a 7.5% probability of contact with dissolved hydrocarbons.

Objectives of the Management Plans for the Montebello Islands, Barrow Islands, Muiron Islands, Ningaloo and Gascoyne protected areas and Marine Parks require considerations to a number of physical, ecological and social values identified in these parks. Impact to the values of these areas is discussed in the relevant sections above (for ecological and physical values) and below (for social values).

Additionally, such hydrocarbon contact may alter stakeholder understanding or perception of the protected marine environment, given these represent areas largely unaffected by anthropogenic influences and contain biologically diverse environments.

Summary of Potential Impacts to Environmental Values(s)
Summary of potential impacts to socio-economic and cultural values
Fisheries – Commercial
<p>Fish exposure to hydrocarbon can result in ‘tainting’ of their tissues. Even very low levels of hydrocarbons can impart a taint or ‘off’ flavour or smell in seafood. Tainting is reversible through the process of depuration, which removes hydrocarbons from tissues by metabolic processes, although it is dependent upon the magnitude of the hydrocarbon contamination. Fish have a high capacity to metabolise these hydrocarbons while crustaceans (such as prawns) have a reduced ability (Yender <i>et al.</i>, 2002). Seafood safety is a major concern associated with spill incidents. Therefore, actual or potential contamination of seafood can affect commercial and recreational fishing and can impact seafood markets long after any actual risk to seafood from a spill has subsided (Yender <i>et al.</i>, 2002). A spill would result in the establishment of an exclusion zone around the spill-affected area. There would be a temporary prohibition on fishing activities for a period of time and subsequent potential for economic impacts to affected commercial fishing operators.</p> <p>The predicted EMBA resulting from a marine diesel spill may impact on the area fished by a number of Commonwealth and State fisheries (see Section 5.6.2). In the unlikely event of a marine diesel spill, there is the potential for the targeted fish species to be exposed to entrained hydrocarbons in the water column. However, the potential for direct impact would be reduced, as target species such as snapper are likely to avoid the surface water layer underneath oil slicks. The relatively small spill-affected area and temporary nature of the predicted marine diesel spill would infer that it is unlikely the hydrocarbon concentrations in the upper surface layers would lead to potential exposure of pelagic fish to contamination. Demersal species (such as finfish) have limited mobility and, therefore, will not be able to easily move away from a spill. Mortality and sub-lethal effects may impact demersal fish located close to the release location.</p> <p>A loss of marine diesel resulting from a vessel collision is unlikely to cause significant direct impacts on the target species of Commonwealth or State commercial fisheries within the defined EMBA.</p>
Fisheries – Traditional
<p>No designated traditional fisheries have been identified to occur within the EMBA; however, traditional fishing has historically occurred at Montebello Islands and in the Ningaloo region. It is recognised that Indigenous communities may fish in the shallow coastal and nearshore waters; however, very little impacts to these environments are predicted to occur.</p>
Tourism and Recreational Activities
<p>Limited recreational fishing and tourism activities occur in the offshore waters of the EMBA. The Montebello Islands are the closest location for tourism activities, located within the EMBA, and occasional recreational fishing occurs at Glomar Shoals and Rankin Bank, both within the EMBA. A loss of marine diesel from a vessel collision may lead to exclusion of marine nature-based tourist activities, resulting in a loss of revenue for a small number of operators. Recreational fishing activities may experience operational inconvenience as vessels may be required to deviate course to avoid the affected area or seek alternative fishing grounds.</p>
Offshore Oil and Gas Activities
<p>Several oil and gas facilities occur in the EMBA (refer to Section 5.6.6), In the highly unlikely event of a major spill, surface hydrocarbons may affect production from existing petroleum facilities (platforms and FPSOs). For example, facility water intakes for cooling and fire hydrants could be shut off, which could in turn lead to the temporary cessation of production activities. Spill exclusion zones established to manage the spill could also prohibit activity support vessel access as well as tankers approaching facilities on the North West Shelf. The impact on ongoing operations of regional production facilities would be determined by the nature and scale of the spill and metocean conditions. Furthermore, decisions about the operation of production facilities in the event of a spill would be based primarily on health and safety considerations.</p>
Commercial Shipping
<p>Low-density traffic is expected to occur in the EMBA (refer to Section 5.6.5). A loss of marine diesel from a vessel collision may lead to exclusion of commercial shipping, resulting in operational inconvenience as vessels may be required to deviate course from intended routes.</p>

Summary of Potential Impacts to Environmental Values(s)

Cultural Values and Heritage

Through consultation and review of available literature (Section 5.6.1), Woodside understands that sea country, including marine ecosystems and species, archaeological heritage and heritage sites, marine parks, as well as intangible cultural heritage may be impacted in the event of a hydrocarbon release from a vessel collision. Cultural features and heritage values that have the potential to be impacted include:

- Marine ecosystems and species: Marine ecosystems may hold both cultural and environmental value to Traditional Custodians (see Section 5.6.1), with cultural and environmental values intrinsically linked (DCCEEW 2023, MAC 2021 as cited in Woodside 2023d). It necessarily follows that an impact to marine ecosystems has the potential to impact cultural features where the impact is detectable within Sea Country—the seascape which Traditional Custodians view, interact with or hold knowledge of. The EMBA is known to include habitat for culturally important species such as whales, whale sharks, turtles, dugongs, plankton, and seagrass (Section 5.3 and 5.6.1). In the event of a worst-case release of MDO individual fauna may be directly impacted or impacted through temporary degradation of their habitats, however, no population level impacts are expected. Impacts are not expected to occur to ecologically significant proportions of the populations of the species, nor result in a decrease of the quality of the habitat such that the extent of these species is likely to decline. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.
- Heritage Sites: The EMBA overlaps 8 Registered Aboriginal Heritage Sites (Section 5.6.1). Any oil that reaches the shoreline has potential to impact on registered sites and indigenous heritage places along the coastline. In the unlikely event of a hydrocarbon release, shoreline accumulation may affect sensitive artefacts or areas, which could damage their heritage value. However, due to the low maximum concentrations predicted to reach any marine park, it is expected their values will be maintained.
- Marine Parks: The EMBA overlaps three AMPs under the North-West Marine Parks Network Management Plan 2018 and four State Marine Parks. Management Plans for these parks recognise cultural values of Indigenous groups (Section 5.6.1.4). Due to the low maximum concentrations predicted to reach any marine park, it is expected their values will be maintained.
- Intangible cultural heritage: Impacts may occur to intangible cultural values such as songlines; creation/dreaming sites, sacred sites, ancestral beings; cultural obligations to care for Country; knowledge of Country/customary law and transfer of knowledge; connection to Country; Access to Country; kinship systems and totemic species, resource collection. Related intangible cultural heritage may include the transmission of cultural knowledge about whales and whale behaviour, including birthing areas, whale communication and migratory patterns. Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). Inter-generational transmission of cultural knowledge (including songlines) relating to marine reptiles may be impacted where changes results in reduced sightings (e.g., through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group’s intangible cultural heritage (UNESCO 2003). In the unlikely event of a hydrocarbon release, intangible cultural heritage values may be impacted.

A search of the Australian National Shipwreck Database (Section 5.6.1.8), which records all known Maritime Cultural Heritage (shipwrecks, aircraft, relics and other underwater cultural heritage) in Australian waters, indicated there are several underwater Cultural Heritage sites within the EMBA (refer Table 5-17). Shipwrecks will be exposed to entrained and dissolved hydrocarbons, and marine life that shelter and take refuge in and around these wrecks may be affected by in-water toxicity of dispersed hydrocarbons. The consequences of such hydrocarbon exposure may include all or some of:

- large fish species moving away
- resident fish species and sessile benthos such as hard corals exhibiting sub-lethal and lethal impacts (which may range from physiological issues to mortality).

Three shipwrecks occur within the EMBA and may be contacted by entrained hydrocarbons.

The Ningaloo Coast World Heritage Place and National Heritage Place are located on the very edge of the EMBA (335 km SW of Julimar South East-1 Operational Area). Given this large distance, it is extremely unlikely a hydrocarbon spill would significantly affect the values of the Ningaloo Coast.

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁵	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
500 m exclusion zone established around offshore support vessel during removal activities.	F: Yes. CS: Minimal cost. Standard practice.	Communicating the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of interfering with other marine users.	Controls based on legislative requirements – must be adopted.	Yes C 9.1
Comply with Marine Order 30 (prevention of collisions) 2016, including: adherence to steering and sailing rules, including maintaining lookouts (such as visual, hearing, radar), proceeding at safe speeds, assessing risk of collision and taking action to avoid collision (monitoring radar) adherence to navigation light display requirements, including visibility, light position and shape appropriate to activity adherence to navigation noise signals as required.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirement to reduce the likelihood of interference with other marine users resulting in a collision.	Controls based on legislative requirements – must be adopted.	Yes C 9.2

³⁵ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁵	Benefit/Reduction in Impact	Proportionality	Control Adopted
Comply with Marine Order 21 (safety and emergency arrangements) 2020, including: adherence to minimum safe manning levels maintenance of navigation equipment in efficient working order (compass or radar) navigational systems and equipment required are those specified in Regulation 19 of Chapter V of Safety of Life at Sea AIS that provides other users with information about the vessel's identity, type, position, course, speed, navigational status and other safety-related data.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirement to reduce the likelihood of interference with other marine users resulting in a collision.	Controls based on legislative requirements – must be adopted.	Yes C 9.3
In the event of a spill, emergency response activities implemented in accordance with the OPEP (Table 8-5).	F: Yes. CS: Costs associated with implementing response strategies vary dependant on nature and scale of spill event. Standard practice.	Potentially reduces consequence by implementing response to reduce impacts to the marine environment.	Control based on regulatory requirement – must be adopted.	Yes C 9.4
Arrangements supporting the activities in the OPEP will be tested to ensure they can be implemented as planned (Table 8-5).	F: Yes. CS: Moderate costs associated with exercises. Standard practice.	No change to impact or risk; however, ensures OPEP can be implemented in the event of a hydrocarbon spill, thereby potentially reducing the consequence.	Control based on regulatory requirement – must be adopted.	Yes C 9.5
Good Practice				

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁵	Benefit/Reduction in Impact	Proportionality	Control Adopted
Notify AHO of activities and movements no less than four weeks before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Notification to AHO will enable it to generate navigation warnings (MSIN and NTM [including AUSCOAST warnings where relevant]).	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.1
Notify AMSA JRCC of activities and movements 24 to 48 hours before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of a collision with a third-party vessel.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.2
Notify relevant commercial stakeholders of activities and movements no less than four weeks before the scheduled activity commencement date.	F: Yes. CS: Minimal cost. Standard practice.	Communication of the Petroleum Activities Program to other marine users ensures they are informed and aware, thereby reducing the likelihood of a collision with a third-party vessel.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 1.3
Develop SIMOPS management plan where multiple campaigns occur concurrently within each Operational Area.	F: Yes CS: Minimal cost. Standard practice.	SIMOPS management plans between Woodside operated vessels in the Operational Area will reduce the likelihood of a collision occurring.	Benefits outweigh cost/sacrifice.	Yes C 9.6
Mitigation: Oil spill response.	Refer to Appendix D.			
Professional Judgement – Eliminate				
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁵	Benefit/Reduction in Impact	Proportionality	Control Adopted
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
Risk-Based Analysis				
A quantitative spill risk assessment was undertaken (see detail above).				
ALARP Statement				
<p>On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the communications protocol that will be in place between the project vessels (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of an unplanned loss of hydrocarbon resulting from vessel collision. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.</p>				

Demonstration of Acceptability
Acceptability Statement
<p>The impact assessment has determined that an accidental hydrocarbon release as a result of a vessel collision represents a moderate current risk rating and may result in minor, short-term impact (one to two years) on species, habitat (but not affecting ecosystem function), physical or biological attributes and communities. Relevant recovery plans and conservation advice have been considered during the impact assessment, and the Petroleum Activities Program is not considered to be inconsistent with the overall recovery objectives and actions of these recovery plans and conservation advice (refer to Section 7.9).</p> <p>During a meeting with WAC, a number of questions related to oil spills were raised (e.g. emergency preparedness, relevance of the EMBA to consultation, whether a diesel spill would only be on the surface, how long diesel stays in the environment, and how soon a spill is responded to) which Woodside provided responses to and no further concerns or comments were raised. During a meeting with the combined WAC-RRKAC Heritage Advisory Committee (HAC), the HAC raised that mangroves are an environmental concern in event of a spill. Woodside responded that mangroves are identified as high sensitivity in existing plans for spill response. The HAC also sought information regarding Woodside’s diesel spill response, which was provided during the meeting. During consultation, NAC raised questions regarding spill response, that were responded to by Woodside by email. Consultation related to hydrocarbon spills also occurred with DEMIRS, AMSA, DBCA, NCWHAC, DNP, DoT, CCG, Shire of Exmouth, Shire of Ashburton, City of Karratha. A summary of all consultation conducted for this EP is included in Appendix F, Table 1 and 2. The adopted controls are considered consistent with industry legislation, codes and standards, good practice and professional judgement and meet the requirements and expectations of Australian Marine Orders, AMSA and AHO identified during impact assessment and stakeholder consultation. On the basis of the environmental impact assessment outcomes and Woodside’s criteria for acceptability outlined in Section 2.7, this is considered an acceptable level of risk.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
EPO 1 Marine users are aware of the Petroleum Activities Program.	C 1.1 Refer to Section 7.7.1.	PS 1.1 Refer to Section 7.7.1.	MC 1.1.1 Refer to Section 7.7.1.
	C 1.2 Refer to Section 7.7.1.	PS 1.2 Refer to Section 7.7.1.	MC 1.2.1 Refer to Section 7.7.1.
	C 1.3 Refer to Section 7.7.1.	PS 1.3 Refer to Section 7.7.1.	MC 1.3.1 Refer to Section 7.7.1.

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
EPO 2 Prevent adverse interactions between vessels and other marine users during the Petroleum Activities Program.	C 2.1 Refer to Section 7.7.1.	PS 2.1 Refer to Section 7.7.1.	MC 2.1.1 Refer to Section 7.7.1.
EPO 9 No release of hydrocarbons to the marine environment due to a vessel collision during the Petroleum Activities Program.	C 9.1 A 500 m exclusion zone established around offshore support vessel during removal activities.	PS 9.1 No adverse interactions between vessels.	MC 9.1.1 Records of adverse interactions in 500 m safety exclusion zone with other marine users are recorded.
	C 9.2 Comply with Marine Order 30 (prevention of collisions) 2016, including: <ul style="list-style-type: none"> • adherence to steering and sailing rules, including maintaining lookouts (such as visual, hearing, radar), proceeding at safe speeds, assessing risk of collision and taking action to avoid collision (monitoring radar) • adherence to navigation light display requirements, including visibility, light position and shape appropriate to activity • adherence to navigation noise signals as required. 	PS 9.2 Project vessels compliant with Marine Order 30 (prevention of collisions) 2016 (which requires vessels to be visible at all times).	MC 9.2.1 Marine assurance inspection records demonstrate compliance with standard maritime safety procedures (Marine Orders 21 and 30).
	C 9.3 Comply with Marine Order 21 (safety and emergency arrangements) 2020, including: <ul style="list-style-type: none"> • adherence to minimum safe manning levels • maintenance of navigation equipment in efficient working order (compass or radar) • navigational systems and equipment required are those specified in Regulation 19 of Chapter V of Safety of Life at Sea • AIS that provides other users with information about the vessel's identity, type, position, course, speed, navigational status and other safety-related data. 	PS 9.3 Project vessels compliant with Marine Order 21 (safety of navigation and emergency procedures) 2016.	
	C 9.4 In the event of a spill, emergency response activities implemented in accordance with the OPEP (Table 8-5).	PS 9.4 In the event of a spill. the OPEP requirements are implemented.	

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	C 9.5 Arrangements supporting the activities in the OPEP-will be tested to ensure they can be implemented as planned (Table 8-5).	PS 9.5.1 Exercises and tests will be conducted in alignment with the frequency identified in Table 8-5.	MC 9.5.1 Testing of arrangement records confirm emergency response capability has been maintained.
		PS 9.5.2 Woodside's procedure demonstrates a minimum level of trained personnel, for core roles in the OPEP, are maintained.	MC 9.5.2 Emergency Management dashboard confirms minimum level of personnel trained for core OPEP roles are available.
		P. 9.5.3 Project vessels to communicate with third party vessels, prevent unplanned interaction, and to assist in emergencies, as required.	MC 9.5.3. Records demonstrate project vessel was on standby as required as per definition or reference in Woodside's One Marine Charterers Instructions.
	C 9.6 Develop SIMOPS management plan where multiple activities occur concurrently within the Operational Area.	PS 9.6 SIMOPS management plan is in place where multiple campaigns occur concurrently within the Operational Area.	MC 9.6.1 Records indicate a SIMOPS management plan has been created.
Detailed preparedness and response performance outcomes, standards and measurement criteria for the Petroleum Activities Program are provided in Appendix D.			

7.8.3 Accidental Hydrocarbon Release: Bunkering

Context														
Project Vessels – Section 4.8				Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcome
Loss of hydrocarbons to marine environment from bunkering/refuelling			x			x	x	A	E	2	M	LCS GP PJ	Broadly Acceptable	EPO 10

Description of Source of Risk

Bunkering of marine diesel to offshore support vessels is planned to occur in the Operational Areas. General support vessels will preferentially refuel at port. Additionally, refuelling of helicopters using aviation jet fuel may occur onboard the project vessels.

Three credible scenarios for the loss of containment of marine diesel during bunkering operations were identified: Partial or total failure of a bulk transfer hose or fittings during bunkering, due to operational stress or other integrity issues, could spill marine diesel to the deck and/or into the marine environment. This would be in the order of less than 200 L, based on the likely volume of a bulk transfer hose (assuming a failure of the dry break coupling and complete loss of hose volume).

Partial or total failure of a bulk transfer hose or fittings during bunkering, combined with a failure in procedure to shut off fuel pumps, for a period of up to five minutes, could result in about 8 m³ marine diesel loss to the deck and/or into the marine environment.

Partial or total failure of a bulk transfer hose or fittings during helicopter refuelling could spill aviation jet fuel to the helicopter deck and/or into the marine environment. All helicopter refuelling activities are closely supervised and leaks on the helideck are considered to be easily detectable. In the event of a leak, transfer would cease immediately. The credible volume of such a release during helicopter refuelling would be in the order of less than 100 L.

Likelihood

The likelihood of '2 - Unlikely' corresponds to 'Has occurred many times in the industry but not at Woodside'.

A search of the Woodside spill records indicates that, while there have been smaller releases (less than 30 L) associated with bunkering, there have been no recorded partial or total failures of bulk transfer hose or fittings during bunkering, combined with a failure in procedure to shut off fuel pumps for a period of up to five minutes, resulting in the worst case credible scenario of an 8 m³ loss of diesel.

IOTPF Limited (IOTPF) (2018) data reports that for tanker operations during 1970 to 2017, 7% of small (more than seven tonnes) spills occurred during bunkering and 2% of medium (seven to 700 tonnes) spills. While this data is from the oil tanker industry, it has been used as an indicator of the potential for spills associated with bunkering activities. A risk assessment by AMSA of oil spills in Australian ports and waters (Det Norske Veritas, 2011) identifies transfer spills as a risk.

Quantitative Spill Risk Assessment

Woodside has commissioned RPS to model several small marine diesel spills, including surface spill volumes of 8 m³ (which is the largest volume in the scenarios outlined above) in the offshore waters of north-west WA. The results of these models have indicated that exposure to surface hydrocarbons above the 10 g/m² threshold is limited to the immediate vicinity of the release site, with little potential to extend beyond 1 km. Therefore, it is considered that exposure to threshold concentrations from an 8 m³ surface spill from bunkering activities would be well within the EMBA for the vessel collision scenario detailed in Section 7.8.2.

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Given this, the offshore location of the Operational Areas, and the fact that the same hydrocarbon type is involved for all scenarios, the existing modelling is considered to be representative of what may occur in the Operational Areas and therefore specific modelling for an 8 m³ marine diesel release was not performed for this Petroleum Activities Program.

When considering a potential spill of aviation fuel during helicopter refuelling, given the physical and chemical similarities, and the relatively small credible spill volumes, marine diesel is considered to be a suitable substitute for aviation jet fuel for the purposes of this environmental risk assessment. Aviation jet fuel would behave similarly to diesel and have similar impacts and, considering small size of spill volumes likely to be contained on the helideck, this has not been modelled.

Hydrocarbon Characteristics

Refer to Section 7.8.1.1 for a description of the characteristics of marine diesel, including detail on the predicted fate and weathering of a spill to the marine environment.

Impact Assessment

Potential Consequence overview

Previous modelling studies for 8 m³ marine diesel releases, spilled at the surface as a result of bunkering activities, indicated that the potential for exposure to surface hydrocarbons exceeding 10 g/m² was confined to within the immediate vicinity (about 1 km) of the release sites. Therefore, it is considered that there is no potential for contact with sensitive receptor locations above surface (10 g/m²), entrained (100 ppb) or dissolved (50 ppb) threshold concentrations from an 8 m³ spill of marine diesel within the Operational Areas.

Summary of Potential Impacts to Protected Species and Water Quality

The potential biological and ecological impacts associated with much larger hydrocarbon spills are presented in Section 7.8.2. Further detail on impacts specific to a spill of marine diesel from a bunkering loss are provided below. The biological consequences of such a small volume spill on identified open water sensitive receptors relate to the potential for minor impacts to megafauna, plankton and fish populations (surface and water column biota) that are within the spill affected- area. No impacts to commercial fisheries are expected. Refer to Section 7.8.2 for the detailed potential impacts of unplanned hydrocarbon release to the marine environment from vessel collision. However, the extent of the EMBA associated with a marine diesel spill from loss during bunkering will be much reduced in terms of spatial and temporal scales; hence, potential impacts from bunkering are considered very minor

Demonstration of ALARP

Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁶	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Marine Order 91 (marine pollution prevention – oil) 2014, requires Shipboard Oil Pollution Emergency Plan (SOPEP) (as appropriate to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes C 10.1
Good Practice				
Bunkering equipment controls: <ul style="list-style-type: none"> All hoses that have a potential environmental risk following damage or failure shall be linked to the project vessels preventative maintenance system. All bulk transfer hoses shall be tested for 	F: Yes. CS: Minimal cost. Standard practice.	Reduces the likelihood of a spill occurring. Although no significant reduction in consequence could result, the overall risk is reduced.	Benefits outweigh cost/sacrifice.	Yes C 10.2

³⁶ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁶	Benefit/Reduction in Impact	Proportionality	Control Adopted
integrity before use (tested in accordance with Original Equipment Manufacturer recommendations) and recertified annually as a minimum. <ul style="list-style-type: none"> • There shall be dry-break couplings and flotation on fuel hoses. • There shall be an adequate number of appropriately stocked, located and maintained spill kits. 				
Contractor procedures include requirements to be implemented during bunkering/refuelling operations, including: <ul style="list-style-type: none"> • A completed PTW and/or Job Safety Assessment (JSA) shall be implemented for the hydrocarbon bunkering/refuelling operation. • Visual monitoring of gauges, hoses, fittings and the sea surface during the operation. • Hose checks prior to commencement. • Bunkering/refuelling will commence in daylight hours. If the transfer is to continue into darkness, the JSA risk assessment must consider lighting and the ability to determine if a spill has occurred. • Hydrocarbons shall not be transferred in marginal weather conditions. 	F: Yes. CS: Minimal cost. Standard practice.	Reduces the likelihood of a spill occurring. Although no significant reduction in consequence could result, the overall risk is reduced.	Benefits outweigh cost/sacrifice.	Yes C 10.3
Professional Judgement – Eliminate				
No refuelling of helicopter on project vessels	F: No. Given the distance of the Operational Areas from the airports suitable for helicopter operations, and the endurance of available helicopters, eliminating helicopter refuelling is not feasible. Helicopter flights cannot	Not considered, control not feasible	Not considered, control not feasible.	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁶	Benefit/Reduction in Impact	Proportionality	Control Adopted
	be eliminated, and may be required in emergency situations. CS: Not assessed, control cannot feasibly be implemented			
No refuelling of project vessels in Operational Area. All project vessels brought into port to refuel.	F: No. Does not eliminate the fuel transfer risk. It is not operationally practical to transit the project vessels back to port for refuelling, based on the frequency of the refuelling requirements and distance from the nearest port (Dampier 257 km). CS: Significant due to schedule delay and vessel transit costs and day rates.	Not considered, control not feasible	Not considered, control not feasible.	No
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type A), Woodside considers the adopted controls appropriate to manage the risks and consequences of a bunkering spill. As no reasonable additional/alternative controls were identified that would further reduce the risks and consequences without grossly disproportionate sacrifice, the risks and consequences are considered ALARP.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>An accidental hydrocarbon release during bunkering operations represents a moderate current risk rating and may result in slight, short-term impacts (>1 year) on species, habitat (but not affecting ecosystems function) or biological attributes. Relevant management plans and species recovery plans and conservation advice have been considered during the impact assessment and, given the adopted controls, the Petroleum Activities Program is not considered to be inconsistent with the overall objectives and actions of these plans.</p> <p>During a meeting with WAC, a number of questions related to oil spills were raised (e.g. emergency preparedness, relevance of the EMBA to consultation, whether a diesel spill would only be on the surface, how long diesel stays in the environment, and how soon a spill is responded to) which Woodside provided responses to and no further concerns or comments were raised. During a meeting with the combined WAC-RRKAC Heritage Advisory Committee (HAC), the HAC raised that mangroves are an environmental concern in event of a spill. Woodside responded that mangroves are identified as high sensitivity in existing plans for spill response. The HAC also sought information regarding Woodside’s diesel spill response, which was provided during the meeting. During consultation, NAC raised questions regarding spill response, that were responded to by Woodside by email. Feedback related to hydrocarbon spills also occurred with DoT, DEMIRS, DBCA, DNP, Shire of Ashburton. A summary of all consultation conducted for this EP is included in Appendix F, Table 1 and 2.</p> <p>The adopted controls are considered consistent with industry legislation, codes and standards, good practice and professional judgement and meet the requirements of Australian Marine Orders. Therefore, Woodside considers the adopted controls appropriate to manage the risk to a level that is broadly acceptable.</p>

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 10 No unplanned loss of hydrocarbons to the marine environment from bunkering greater than a consequence level of E³⁷ during the Petroleum Activities Program.</p>	<p>C 10.1 Marine Order 91 (marine pollution prevention – oil) 2014, requires SOPEP (as appropriate to vessel class).</p>	<p>PS 10.1 Appropriate initial responses prearranged and drilled in case of a hydrocarbon spill, as appropriate to vessel class.</p>	<p>MC 10.1.1 Marine assurance inspection records demonstrate compliance with Marine Order 91.</p>
	<p>C 10.2 Bunkering equipment controls:</p> <ul style="list-style-type: none"> • All hoses that have a potential environmental risk following damage or failure shall be placed on the project vessel's preventative maintenance system. • All bulk transfer hoses shall be tested for integrity before use (tested in accordance with Original Equipment Manufacturer recommendations and recertified annually as a minimum). • There shall be dry-break couplings and flotation on fuel hoses. • There shall be an adequate number of appropriately stocked, located and maintained spill kits. 	<p>PS 10.2.1 Damaged equipment is replaced before failure.</p>	<p>MC 10.2.1 Records confirm the bunkering equipment is subject to systematic integrity checks.</p>
		<p>PS 10.2.2 Bunkering equipment controls employed during bunkering.</p>	<p>MC 10.2.3 Records confirm presence of dry break of couplings and flotation on fuel hoses.</p>
		<p>PS 10.2.3 Spill kits available in the event of a spill during bunkering.</p>	<p>MC 10.2.3 Records confirm presence of spill kits.</p>

³⁷ Defined as 'Slight, short-term local impact (less than one year), on species, habitat (but not affecting ecosystem function), physical or biological attributes'.

	<p>C 10.3 Contractor procedures include requirements to be implemented during bunkering/refuelling operations, including:</p> <ul style="list-style-type: none"> • Implement a completed PTW and/or JSA for the hydrocarbon bunkering/refuelling operation. • Visually monitor gauges, hoses, fittings and the sea surface during the operation. • Check hoses prior to commencement. • Commence bunkering/refuelling in daylight hours. If the transfer is to continue into darkness, the JSA risk assessment must consider lighting and the ability to determine if a spill has occurred. • Do not transfer hydrocarbons in marginal weather conditions. 	<p>PS 10.3 Comply with Contractor procedures for managing bunkering/helicopter operations.</p>	<p>MC 10.3.1 Records demonstrate bunkering/refuelling performed in accordance with contractor bunkering procedures.</p>
<p>Detailed preparedness and response performance outcomes, standards and measurement criteria for the Petroleum Activities Program are provided in Appendix D.</p>			

7.8.4 Unplanned Discharge: Deck Spills

Context														
Project Vessels – Section 4.8			Physical Environment – Section 5.1.4 Biological Environment – Section 5.5					Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-Economic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcome
Accidental discharge of hydrocarbons/ chemicals from project vessel deck activities and equipment (such as cranes and winches) within the Operational Areas			x			x		A	F	2	L	LCS GP	Broadly Acceptable	EPO 11
Description of Source of Risk														
<p>Deck spills can result from spills of stored hydrocarbons and chemicals or equipment. Project vessels typically store hydrocarbon and chemicals in various volumes. Storage areas are typically set up with effective primary and secondary bunding to contain any deck spills. Releases from equipment are predominantly from the failure of hydraulic hoses, which can either be located within bunded areas or outside of bunded or deck areas (such as over water on cranes).</p> <p>Woodside’s operational experience demonstrates spills are most likely to originate from hydraulic hoses and have been less than 100 L, with an average volume less than 10 L.</p> <p>All chemicals that may be released or discharged to the marine environment during the Petroleum Activities Program are assessed as per the Woodside Chemical Selection and Assessment. This guideline is used to demonstrate the potential impacts of the chemicals that may be released are acceptable and ALARP and meet Woodside’s expectation for environmental performance (Section 4.13.1).</p>														
Impact Assessment														
Potential Impacts to Environmental Value(s)														
<p>No significant impacts from the accidental discharges described are anticipated in the offshore/open water locations of the Operational Areas, because of the minor quantities involved (less than 10 L), the limited duration of vessel activities in any one location, and high level of dilution into the open water marine environment of the Operational Areas. The biological consequences of such a small volume spill on identified open-water sensitive receptors relate to a minor potential for toxicity impacts to plankton and fish populations (surface and water column biota) and localised reduction in water quality within a small spill-affected area. The spill-affected area would be limited to waters in close proximity to the project vessels where marine megafauna are not expected to occur. No impacts are predicted to benthic habitat communities in the Operational Areas.</p>														
Summary of Potential Impacts to Environmental Value(s)														
<p>Given the adopted controls, it is considered minor hydrocarbon and harmful chemical spills to the marine environment will not result in a potential impact to water quality greater than localised contamination above background levels, quality standards or known effect concentrations, and will not result in a potential impact greater than slight and short-term (in other words, Environmental Impact – F).</p>														

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)³⁸	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Marine Order 91 (marine pollution prevention – oil) 2014, requires Shipboard Oil Pollution Emergency Plan (SOPEP) (as appropriate to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes C 10.1
Good Practice				
Liquid chemical and fuel storage areas are bunded or secondarily contained when they are not being handled or moved temporarily	F: Yes. CS: Minimal cost. Standard practice.	Reduces the likelihood of contaminated deck drainage water being discharged to the marine environment.	Benefits outweigh cost/sacrifice. Control is also standard practice.	Yes C 11.1
Maintain and locate spill kits in close proximity to hydrocarbon storage areas and deck areas for use to contain and recover deck spills.	F: Yes. CS: Minimal cost. Standard practice.	Reduces the likelihood of a deck spill from entering the marine environment. The consequence is unchanged.	Benefits outweigh cost/sacrifice.	Yes C 11.2
Professional Judgement – Eliminate				
None identified.				
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
Below-deck storage of all hydrocarbons and chemicals.	F: Not feasible. During operations there is a need to keep small volumes near activities and within equipment requiring use of hydrocarbons and chemicals, which can result in increased risk of leaks from transfers via hose or smaller containers. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
A reduction in the volumes of chemicals and hydrocarbons stored onboard the vessel.	F: Yes. Increases the risks associated with transportation and lifting operations. CS: Project delays if required chemicals not on board. Increases the risks associated with transportation and lifting operations.	No reduction in likelihood or consequence since chemicals will still be required to enable activities to occur.	Disproportionate. The cost/sacrifice outweighs the benefit gained.	No
ALARP Statement				

³⁸ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) ³⁸	Benefit/Reduction in Impact	Proportionality	Control Adopted
<p>On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of the potential unplanned accidental deck spills described above. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The risk assessment has determined an unplanned minor discharge of hydrocarbons or chemicals as a result of minor deck spills represents a low current risk rating that is unlikely to result in potential impact greater than localised and temporary disruption to a small proportion of the population and no impact on critical habitat or activity. Further opportunities to reduce the impacts and risks have been investigated above.</p> <p>The adopted controls are consistent with the most relevant regulatory guidelines and good oil-field practice/industry best practice. The potential impacts and risks are considered acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of minor unplanned deck spills to a level that is broadly acceptable.</p>

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
<p>EPO 11</p> <p>No unplanned spills to the marine environment from deck activities greater than a consequence level of F³⁹ during the Petroleum Activities Program.</p>	<p>C 10.1</p> <p>See Section 7.8.3</p>	<p>PS 10.1</p> <p>See Section 7.8.3</p>	<p>MC 11.1.1</p> <p>See Section 7.8.3</p>
	<p>C 11.1</p> <p>Liquid chemical and fuel storage areas are banded or secondarily contained when they are not being handled or moved temporarily.</p>	<p>PS 11.1</p> <p>Failure of primary containment in storage areas does not result in loss to the marine environment.</p>	<p>MC 11.1.1</p> <p>Records confirm all liquid chemicals and fuel are stored in banded or secondarily contained areas when not being handled or moved temporarily.</p>
	<p>C 11.2</p> <p>Maintain and locate spill kits in close proximity to hydrocarbon storage areas and deck areas for use to contain and recover deck spills.</p>	<p>PS 10.2.3</p> <p>See Section 7.8.3</p>	<p>MC 10.2.3</p> <p>See Section 7.8.3</p>

³⁹ Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors'.

7.8.5 Planned and Unplanned Discharge: Loss of Solid Hazardous and Non-Hazardous Wastes (including Dropped Objects)

Context														
Activity Components – Section 4			Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6							
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Accidental loss of hazardous or non-hazardous wastes (including dropped objects) to the marine environment (excludes sewage, grey water, putrescible waste and bilge water)			X		X	X		A	F	2	L	LCS GP	Broadly Acceptable	EPO 12
Inappropriate disposal of waste generated from infrastructure removal			X	X	X	X	X		F	2	L			
Generation and disposal of waste from infrastructure removal			X	X	X	X	X		F	-	-			
Dropped objects resulting in disturbance of benthic habitat					X				F	2	L			
Dropped objects resulting in disturbance to telecommunication infrastructure							X		F	2	L			
Description of Source of Impact														
<p>Solid Wastes</p> <p>The project vessels will generate a variety of solid wastes, including packaging and domestic wastes such as aluminium cans, bottles, paper and cardboard. Hence, there is the potential for solid wastes to be lost overboard to the marine environment. Wastes on-board are managed in accordance with the on-board waste management plan. Some wastes may be incinerated. Based on industry experience, waste items lost overboard are typically wind-blown rubbish such as container lids and cardboard. Such losses typically have occurred during back-loading activities, periods of adverse weather and incorrect waste storage.</p> <p>Generation and disposal of waste from infrastructure removal</p>														

Infrastructure recovery will also generate industrial waste mainly comprising of steel (Section 4.7.1 and 4.13.1) that will require onshore handling and disposal at licensed facilities. Wastes generated from decommissioning of subsea infrastructure could contribute to the increasing pressure on local landfills if not managed appropriately through consideration of the waste hierarchy and alternate means of disposal to landfill. There is also the potential for recovered infrastructure to be incorrectly classified and disposed of inappropriately leading to contamination of waste streams.

Dropped Objects

There is the potential for objects to be dropped overboard from the project vessels to the marine environment. Objects that have been dropped during previous offshore activities include small numbers of personal protective gear (such as glasses, gloves, hard hats), small tools (such as spanners) hardware fixtures (such as riser hose clamp) and drill equipment (such as drill pipe).

For the Petroleum Activities Program, the largest dropped object would be the wellhead itself. The wellhead, including the TGB and PGB, once removed will be between approximately 2.2 m and 4.5 m tall, with a radius of approximately 1 m. The overall footprint of disturbance within each Operational Area from the wellhead itself being dropped is estimated to be minimal and localised (less than 5 m²).

Impact Assessment

Potential Impacts to Environmental Values

Solid Wastes

The potential impacts of solid wastes accidentally discharged to the marine environment include direct pollution and contamination of the environment and secondary impacts relating to potential contact of marine fauna with wastes, resulting in entanglement or ingestion and leading to injury and death of individual animals. Several migratory and threatened species were identified as occurring within the Operational Areas and have overlapping BIAs, including cetaceans, marine turtles and whale sharks. BIAs overlapping the Operational Areas include the pygmy blue whale distribution and migration BIA, the flatback turtle internesting buffer BIA and critical habitat area and the whale shark foraging BIA. However, these species are expected to be transient as there are no known aggregation areas.

The temporary or permanent loss of waste materials into the marine environment is highly unlikely to have a significant environmental impact, based on the types, size and frequency of wastes that could occur during the limited time the vessels will be in the Operational Areas (maximum of ten days per wellhead removal) and the transient nature of the species present. Given this, impacts will have no lasting effect on any species or water quality.

Generation and disposal of waste from infrastructure removal

Incorrect classification of waste can also result in inappropriate disposal of hazardous decommissioning wastes that could contaminate non-hazardous waste streams. This has the potential to result in contamination to air, soil and water during disposal. Incorrect disposal of hazardous waste onshore could result in negligible impacts to the environment on a near-field scale (i.e. limited to the disposal site/facility).

The increasing pressure on landfills globally is considered a significant environmental and social challenge and can result in indirect impacts to biodiversity, air and water pollution. Decommissioning wastes generated from the activity will result in a negligible contribution domestically and negligible contribution globally to increasing landfill capacity.

Dropped Objects

In the unlikely event of loss of an object being dropped into the marine environment, potential environmental effects would be limited to localised physical impacts on benthic communities. In most cases objects will be able to be recovered; therefore, these impacts will also be temporary in nature. However, there may be instances where objects are unable to be recovered due to health and safety, operational constraints or other factors such as the difficulty of recovering dropped objects at depth. When dropped objects are unable to be recovered, the impact will continue to be localised but would also be long-term. The benthic communities associated with the majority of Operational Areas are of low sensitivity and are broadly represented throughout the broader region (Section 5.2). Significant impacts to these communities are not expected and no lasting effects are anticipated.

However, there are two KEFs that overlap with Operational Areas: the Ancient Coastline at 125 m depth contour KEF and the Glomar Shoals KEF (Figure 5-12). Fifteen Operational Areas overlap the Ancient Coastline KEF (Dockrell-1, Goodwyn-1, Goodwyn-2, Goodwyn-3, Goodwyn-4, Goodwyn-5, Goodwyn-6, North Rankin-1, North Rankin-2, North Rankin-3, North Rankin-4, North Rankin-5, North Rankin-6, Lambert-1 and Balnaves Deep-1) and one Operational Area overlaps the Glomar Shoals KEF (Angel-3) and, therefore, dropped objects may directly affect a very small, localised area of the benthic habitats of these KEFs.

While Falkner *et al.* (2009) found a number of hard coral and sponge species associated with the Glomar Shoals, these species were found in water depths less than 40 m and thus would not be impacted by the removal of Angel-3 wellhead, which is found at a depth of 69 m. It is also only a very small proportion of this KEF that the Operational Area overlaps (0.9% of the Glomar Shoals KEF lies within the Angel-3 Operational Area). The feature of the Glomar Shoals KEF, with structurally complex, biodiverse benthic habitats (Wahab *et al.*, 2018) is located within the north-eastern section of the KEF and does not overlap with the Angel-3 Operational Area. Damage to hard substrates within the Operational Areas or the KEF and associated fauna may occur; however, such impacts are expected to be

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localised to a small area of the seabed and restricted to the size of the dropped object, with only a very small proportion of the benthic habitat impacted. Thus, significant impacts are not expected and no lasting effects are anticipated.

As discussed in Section 7.6.2, other live oil and gas infrastructure is present in a number of petroleum titles (Table 4-7). Risks associated with this include damage to live oil and gas infrastructure from dropped objects which could result in a loss of hydrocarbons to the environment. The worst-case credible hydrocarbon release scenarios from these risks have been defined and assessed in the relevant accepted EPs outlined in Table 4-7.

There is also a telecommunication cable present in the operational area, approximately 260 m from the North-Rankin-3 wellhead. However, given the distance between the wellhead and the telecommunication cable it is unlikely that a dropped object would interact with it. Telstra will be consulted in regard to activities on North Rankin 3 as described in Section 7.7.1. Consultation with ACMA has not raised any specific concerns in relation to the petroleum activity.

Controls for prevention of dropped objects on live infrastructure as a result of the Petroleum Activities Program have been included below.

Summary of Potential Impacts to Environmental Values(s)

Given the adopted controls, it is considered the accidental discharge of solid waste, inappropriate disposal of waste generated from infrastructure removal dropped objects described will result in localised impacts to environmental receptors, with no significant impact anticipated, and with negligible or no lasting effect (in other words, Environmental Impact – F).

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Marine Order 95 – marine pollution prevention – garbage (as appropriate to vessel class), prescribes matters necessary to give effect to Annex V of MARPOL, which prohibits the discharge of all garbage into the sea, except as provided otherwise.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes C 6.1
Disposal of any hazardous waste associated with the subsea infrastructure will comply with relevant State and Commonwealth legislation: <ul style="list-style-type: none"> • Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Cth) • WA Environmental Protection (Controlled Waste) Regulations 2004. 	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of incorrect disposal of infrastructure. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	C 12.1

⁴⁰ Qualitative measure

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
Good Practice				
<p>Project vessel waste arrangements, which require:</p> <ul style="list-style-type: none"> dedicated waste segregation bins records of all waste to be disposed, treated or recycled waste streams to be handled and managed according to their hazard and recyclability class. 	<p>F: Yes. CS: Minimal cost. Standard practice.</p>	<p>Reduces the likelihood of an unplanned release. The consequence is unchanged.</p>	<p>Benefit outweighs cost/sacrifice.</p>	<p>Yes C 12.2</p>
<p>Lost waste or dropped objects will be recovered, where safe and practicable. Where safe and practicable for this activity, will consider:</p> <ul style="list-style-type: none"> risk to personnel to retrieve object whether the location of the object is in recoverable water depths object's proximity to subsea infrastructure ability to recover the object (as in, nature of object, lifting equipment and suitable weather). 	<p>F: Yes; however, it may not always be practicable. Assessed on a case-by-case situation. CS: Minimal cost. Standard practice.</p>	<p>No reduction in likelihood, as this is an unplanned event. Since the equipment may be recovered, a reduction in consequence is possible.</p>	<p>Benefit outweighs cost/sacrifice.</p>	<p>Yes C 12.3</p>
<p>The project vessels' work procedures for lifts, bulk transfers and cargo loading, which require:</p> <ul style="list-style-type: none"> the security of loads shall be checked before commencing lifts. loads shall be covered if there is a risk of loss of loose materials. lifting operations shall be conducted using the PTW and JSA systems to manage the specific risks of that lift, including consideration of weather and sea state. 	<p>F: Yes. CS: Minimal cost. Standard practice.</p>	<p>Occurs after a dropped object event and therefore no change to the likelihood. Since the object may be recovered, a reduction in consequence is possible.</p>	<p>Benefit outweighs cost/sacrifice.</p>	<p>Yes C 12.4.</p>

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴⁰	Benefit/Reduction in Impact	Proportionality	Control Adopted
Project vessel inductions include control measures and training for crew in dropped object prevention	F: Yes. CS: Minimal cost. Standard practice.	By ensuring crew are appropriately trained in dropped object prevention, the likelihood of a dropped object event is reduced. No change in consequence will occur	Benefit outweighs cost/sacrifice.	Yes C 12.5
Wellheads will be cut and walked to beyond a calculated drop radius before being recovered if there is potential to cause damage to live infrastructure within the Operational Area.	F: Yes. CS: Minimal cost. Standard practice.	Ensuring infrastructure is lifted beyond a calculated drop radius to reduce the likelihood of damage to live infrastructure.	Benefit outweighs cost sacrifice.	Yes C 12.6
Implement an infrastructure disposal and resource recovery strategy that: <ul style="list-style-type: none"> • monitors and tracks waste from recovery to end state • considers the waste hierarchy when determining appropriate end state for waste • describes contingency procedures for dealing with contaminants offshore and onshore 	F: Yes. CS: Minimal cost. Standard practice.	Reduces the risk of unsuitable disposal through efficient use of resources and reduces the risk of an unplanned contamination of waste streams during disposal.	Benefit outweighs cost/sacrifice.	Yes C 12.7
Undertake engagement with waste contractors to identify potential waste disposal pathways.	F: Yes. CS: Minimal cost. Standard practice.	Reduces the risk of unsuitable disposal through efficient use of resources.	Benefit outweighs cost/sacrifice.	Yes C 12.8
Professional Judgement – Eliminate				
None identified.				
Professional Judgement – Substitute				
None identified.				
Professional Judgement – Engineered Solution				
None identified.				
ALARP Statement				
On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of accidental discharges of waste. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.				

Demonstration of Acceptability
Acceptability Statement

Demonstration of Acceptability

The impact assessment has determined that, given the adopted controls, accidental discharge of solid waste represents a low current risk rating that is unlikely to result in a potential impact above localised slight, short-term localised impact to environmental receptors. Further opportunities to reduce the impacts and risks have been investigated above. Relevant recovery plans conservation advice and threat abatement plans have been considered during the impact assessment, and the Petroleum Activities Program is not considered to be inconsistent with the overall recovery objectives and actions of these recovery plans, advice and threat abatement plans (refer to Section 7.9). The adopted controls are considered good oil-field practice/industry best practice and meet legislative requirements (Marine Order 95). Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of these discharges to a level that is broadly acceptable.

Environmental Performance Outcomes, Standards and Measurement Criteria

Outcomes	Controls	Standards	Measurement Criteria
EPO 12 No unplanned releases of solid hazardous or non-hazardous waste to the marine environment greater than a consequence level of F ⁴¹ during the Petroleum Activities Program.	C 6.1 See Section 7.7.5	PS 6.1 See Section 7.7.5	MC 6.1.1 See Section 7.7.5
	C 12.1 Disposal of any hazardous waste associated with the subsea infrastructure will comply with relevant State and Commonwealth legislation: <ul style="list-style-type: none"> • Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Cth) • Environmental Protection (Controlled Waste) Regulations 2004 (WA). 	PS 12.1 Disposal of any hazardous waste associated with the subsea infrastructure is compliant with the Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Cth) and W Environmental Protection (Controlled Waste) Regulations 2004 (WA).	MC 12.1.1 Records demonstrate disposal of hazardous waste associated with the subsea infrastructure was compliant with relevant Commonwealth and State legislation.
	C 12.2 Project vessel waste arrangements, which require: <ul style="list-style-type: none"> • dedicated waste segregation bins • records of all waste to be disposed, treated or recycled • waste streams to be handled and managed according to their hazard and recyclability class. 	PS 12.2 Waste will be managed in accordance with the project vessel waste arrangements.	MC 12.2.1 Records demonstrate compliance against project vessel waste arrangements.

⁴¹ Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors'.

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>C 12.3</p> <p>Lost waste or dropped objects will be recovered, where safe and practicable.</p> <p>Where safe and practicable for this activity, will consider:</p> <ul style="list-style-type: none"> • risk to personnel to retrieve object • whether the location of the object is in recoverable water depths • object's proximity to subsea infrastructure • ability to recover the object (as in, nature of object, lifting equipment and suitable weather). 	<p>PS 12.3</p> <p>Waste dropped to the marine environment will be recovered where safe and practicable to do so.</p>	<p>MC 12.3.1</p> <p>Records detail the recovery attempt consideration and status of any waste lost to the marine environment.</p>
	<p>C 12.4</p> <p>The project vessel's work procedures for lifts, bulk transfers and cargo loading, including the following requirements:</p> <ul style="list-style-type: none"> • The security of loads shall be checked prior to commencing lifts. • Loads shall be covered if there is a risk of loss of loose materials. • Lifting operations shall be conducted using the Permit to Work and Job Safety Analysis systems to manage the specific risks of that lift, including consideration of weather and sea state. 	<p>PS 12.4</p> <p>All lifts conducted in accordance with applicable project vessels' work procedures to limit potential for dropped objects.</p>	<p>MC 12.4.1</p> <p>Records show lifts conducted in accordance with the applicable project vessel work procedures.</p>
	<p>C 12.5</p> <p>Project vessel inductions include control measures and training for crew in dropped object prevention.</p>	<p>PS 12.5</p> <p>Project vessels crews aware of requirements for dropped object prevention.</p>	<p>MC 12.5.1</p> <p>Records show dropped object prevention training is provided to the project vessels.</p>
	<p>C 12.6</p> <p>Wellheads will be cut and walked to beyond a calculated drop radius before being recovered if there is potential to cause damage to live infrastructure within the Operational Area.</p>	<p>PS 12.6</p> <p>Infrastructure is recovered outside calculated drop radii around live infrastructure.</p>	<p>MC 12.6.1</p> <p>Records demonstrate drop radii are calculated for any removal activities in proximity to live infrastructure, and infrastructure is recovered outside these radii.</p>

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	<p>C 12.7</p> <p>Implement an infrastructure disposal and resource recovery strategy that:</p> <ul style="list-style-type: none"> • monitors and tracks waste from recovery to end state • considers the waste hierarchy when determining appropriate end state for waste • describes contingency procedures for dealing with contaminants offshore and onshore 	<p>PS 12.7</p> <p>Decommissioning waste generated from infrastructure removal is managed in accordance with the infrastructure disposal and resource recovery strategy.</p>	<p>MC 12.7.1</p> <p>Records demonstrate compliance against an infrastructure disposal and resource recovery strategy.</p>
	<p>C 12.8</p> <p>Undertake engagement with waste contractors to identify potential waste disposal pathways.</p>	<p>PS 12.8</p> <p>Engagement with relevant waste contractors to identify potential waste disposal pathways will be undertaken prior to inform preparation of an infrastructure disposal and resource recovery strategy.</p>	<p>MC 12.8.1</p> <p>Records demonstrating relevant waste contractors have been engaged</p>

7.8.6 Physical Presence: Vessel Collision with Marine Fauna

Context														
Project Vessels – Section 4.8				Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted						Evaluation							
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Broadly Acceptable/Acceptability	Outcomes
Accidental collision between project vessels and threatened or migratory marine fauna within the Operational Areas						x	x	A	F	1	L	LCS	Broadly Acceptable	EPO 13
Description of Source of Risk														
<p>The project vessels operating in and around the Operational Areas may present a potential hazard to cetaceans and other protected marine fauna. Vessel movements can result in collisions between the vessel (hull and propellers) and marine fauna, potentially resulting in superficial injury, serious injury that may affect life functions (such as movement and reproduction) and mortality. The factors that contribute to the frequency and severity of impacts due to collisions vary greatly due to vessel type, vessel operation (specific activity, speed), physical environment (such as water depth) and the type of animal potentially present and their behaviours.</p> <p>Project vessels would typically be stationary or moving at low speeds when supporting the Petroleum Activities Program; general support vessels typically transit to and from the Operational Areas once per week (such as to port).</p>														

Impact Assessment
Potential Impacts to Environmental Values
<p>Marine Fauna</p> <p>Vessel disturbance is a key threat to a number of migratory and threatened species identified as potentially occurring within Operational Areas, including cetaceans, marine turtles and whale sharks. BIAs overlapping the Operational Areas include the pygmy blue whale distribution and migration BIA, the flatback turtle internesting buffer BIA and critical habitat area and the whale shark foraging BIA. Relevant recovery plans and conservation advice have been considered during this impact assessment and relevant conservation actions outlined in these plans are listed in Section 7.9.</p> <p>Cetaceans</p> <p>Cetaceans are naturally inquisitive marine mammals. The reaction of cetaceans to the approach of a vessel is quite variable. Some species remain motionless when close to a vessel, while others are known to be curious and often approach ships that have stopped or are slow-moving, although they generally do not approach and sometimes avoid faster-moving ships (Richardson <i>et al.</i>, 1995). The Whale and Dolphin Conservation Society (WDCS, 2006) indicates some cetacean species, such as humpback whales, can detect and change course to avoid a vessel.</p> <p>The likelihood of vessel/whale collision being lethal is influenced by vessel speed – the greater the speed at impact, the greater the risk of mortality (Jensen and Silber, 2004; Laist <i>et al.</i>, 2001). Vanderlaan and Taggart (2007) found the chance of lethal injury to a large whale as a result of a vessel strike increases from about 20% at 8.6 knots to 80% at 15 knots. Project vessels within the Operational Areas are likely to be travelling less than eight knots; therefore, the chance of a vessel collision with protected species resulting in a lethal outcome is considered unlikely, as fauna can move away from project vessels.</p> <p>Collisions between vessels and marine mammals occur more frequently in areas where high vessel traffic and important habitat coincide (WDCS, 2006). The pygmy blue whale may occur within all 36 Operational Areas and the pygmy blue whale migration BIA overlaps with one Operational Area (Grange-1-WA). Individuals may transit through</p>

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these Operational Areas but aggregations are not expected. Given the absence of aggregations, the size of the BIAs in total, duration of activities within the Operational Areas and the slow speeds at which project vessels operate, collisions with cetaceans are considered highly unlikely.

Marine Turtles

Marine turtles are at potential risk from vessel strike. Hazel and Gyuris (2006) reviewed vessel strike data from 1999 to 2002 on the Queensland east coast and found during that period, at least 65 turtles were killed annually as a result of collisions with vessels. Green turtles, followed by loggerhead turtles, comprised the majority of vessel-related records, and 72% of cases were adult or sub-adult turtles (Hazel and Gyuris, 2006). In Australian waters, all species of marine turtle have been involved in vessel strikes (DoEE, 2016).

The effect of vessel speed and turtle flee response can be significant. A study by Hazel *et al.* (2007) found 60% of green turtles fled from vessels travelling at 2.2 knots (4 km/h) while only 4% fled from vessels travelling at 10.2 knots (19 km/h). When fleeing, 75% of turtles moved away from the vessel’s track, 8% swam along the vessel track and 18% crossed in front of the vessel. The study concluded most turtles would be unlikely to avoid vessels travelling at speeds greater than around 2.2 knots (Hazel *et al.*, 2007; DoEE, 2017).

The flatback turtle internesting buffer BIA overlaps with 17 Operational Areas (Julimar South East-1, Julimar East-1, Balnaves Deep-1, Grange-1, Brunello-1ST1, Brulimar-1, Lady Nora-2, Lowendal-1, Haycock-1, Dixon-1, Rankin-1, Dockrell-1, Tidepole-1, Goodwyn-3, Goodwyn-6, Goodwyn-4 and Goodwyn-1) and habitat critical to the survival of the flatback turtle overlaps with nine Operational Areas (Julimar South East-1, Julimar East-1, Grange-1, Balnaves Deep-1, Brunello-1, Brulimar-1, Lowendal-1, Lady Nora-2 and Haycock-1), as shown in Figure 5-6. Due to the absence of marine turtle aggregations, the Operational Areas are unlikely to represent important habitat for marine turtles. The occurrence of all species of marine reptiles within the Operational Areas is expected to be limited to infrequent occurrences of transitory individuals. Given the duration of activities within the Operational Areas and the slow speeds at which project vessels operate, collisions or entanglement with transiting marine turtles are considered highly unlikely.

Whale Sharks

Whale sharks which have been shown to spend approximately 25% of their time less than 2 m from the surface and greater than 40% in the upper 15 m of the water column (Wilson *et al.*, 2006; Gleiss *et al.*, 2013), making them vulnerable to vessel strike. Individuals are most at risk from vessel strikes when feeding at the surface or in shallow waters (where there is limited option to dive). Given all 36 Operational Areas overlap the foraging BIA for this species, there may be an increased risk of interaction between July and November. However, considering the duration of the activities and the slow speed of vessels during the activity, the risk is considered low.

Cultural Values and Heritage

Through consultation and review of available literature (Section 5.6.1), Woodside understands that marine fauna that may be affected by a collision with a project vessel, such as marine mammals, whale sharks and turtles, are culturally important to Traditional Custodians. Traditional Custodians value these species both tangibly as well intangibly as they can be considered a resource or linked to songlines and dreaming stories. Traditional Custodians also have connection to many marine species through kinship and totemic systems; an individual may have obligation to care for a species to which they are kin. Traditional Custodians may also have a cultural obligation to care for the environmental values of Sea Country.

For example, activities that impact turtle populations and their marine environment may have an indirect impact on some Indigenous communities if they deplete hunting areas and threaten local food security (Delisle *et al.* 2018:251). Whale species may be subject of First Nations’ increase ceremonies / rituals which are performed to enhance or maintain populations. As these thalu ceremonies are performed to maintain and increase populations of marine species, it is considered that management applies at the species/population level and not to individuals. For example the thalu site on Murujuga which “brings in whales to beach” will continue to serve its purpose so long as whales continue to migrate through Mermaid Sound.

Related intangible cultural heritage may include the transmission of cultural knowledge about whales and whale behaviour, including birthing areas, whale communication and migratory patterns. Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). Inter-generational transmission of cultural knowledge (including songlines) relating to marine reptiles may be impacted where changes results in reduced sightings (e.g., through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group’s intangible cultural heritage (UNESCO 2003).

As described in the assessment of impacts to marine fauna (above), potential impacts to marine fauna are predicted to be at an individual level, which are not considered to be ecologically significant at a population level. Impacts are not expected to occur to ecologically significant proportions of the populations of the species, nor result in a decrease of the quality of the habitat such that the extent of these species is likely to decline. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

Cumulative Impacts

Cumulative effects from the activity and from other activities conducted in the vicinity are not expected, due to the short-term nature of the operations and the slow speed at which vessels will be operating.

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Since removal of each wellhead and associated infrastructure will be conducted sequentially, rather than concurrently, and given the low-level impacts expected, cumulative impacts to receptors are not expected.

Summary of Potential Impacts to Environmental Value(s)

Given the adopted controls, it is considered that if a collision or entanglement were to occur, it will not result in a potential impact greater than a localised impact to environmental receptors, with no lasting effect to marine fauna populations (in other words, Environmental Impact – F).

Demonstration of ALARP

Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴²	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans, including the following measures ⁴³ : <ul style="list-style-type: none"> • Project vessels will not travel faster than six knots within 300 m of a cetacean or turtle (caution zone) and not approach closer than 100 m from a whale. • Project vessels will not approach closer than 50 m for a dolphin or turtle and 100 m for a whale (with the exception of animals bow-riding). • If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than six knots. • Vessels will not travel faster than eight knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark. 	F: Yes. CS: Minimal cost. Standard practice.	Implementation of these controls will reduce the likelihood of a collision between a cetacean, whale shark or turtle occurring. The consequence of a collision is unchanged.	Controls based on legislative requirements – must be adopted.	Yes C 4.1
Good Practice				
No additional controls identified.				

⁴² Qualitative measure

⁴³For safety reasons, the distance requirements below are not applied for a vessel holding station or with limited manoeuvrability; for example, loading, back-loading, bunkering, close standby cover for overside working and emergency situations.

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)42	Benefit/Reduction in Impact	Proportionality	Control Adopted
Professional Judgement – Eliminate				
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the Petroleum Activities Program. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
Professional Judgement – Substitute				
Management of vessel noise by varying the timing of the Petroleum Activities Program to avoid whale shark peak periods (July to November) and pygmy blue whale migration (April to August, October to December).	F: Yes. Avoidance of the migration period is technically feasible, although not considered to be reasonably practicable. CS: Significant cost and schedule delays in contracting vessel for a specific timeframe.	Negligible reduction in consequence, given the duration and nature of the activity and receiving environment.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit.	No
The use of dedicated MFOs on general support vessel(s) for the duration of the Petroleum Activities Program to watch for whales and provide direction on and monitor compliance with Part 8 of the EPBC Regulations.	F: Yes. Vessel bridge crews already maintain a constant watch during operations, and crew complete specific cetacean observation training. CS: Additional cost of MFOs considered unnecessary.	Given general support vessel bridge crews already maintain a constant watch during operations, additional MFOs would not significantly further reduce the risk.	Grossly disproportionate. Implementation of the control requires considerable cost sacrifice for minimal environmental benefit.	No
Professional Judgement – Engineered Solution				
None identified.				
<p>ALARP Statement</p> <p>On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the impacts and risks of potential vessel collision and entanglement with protected marine fauna. As no reasonable additional or alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.</p>				

Demonstration of Acceptability
<p>Acceptability Statement</p> <p>The impact assessment has determined that, given the adopted controls, vessel collision with marine fauna represents a low risk rating, with localised impacts and no lasting effect to marine fauna populations. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are considered good oil-field practice/industry best practice and meet the requirements of Part 8 (Division 8.1) of the EPBC Act Regulations 2000. The residual risk of vessel collision with marine fauna is not inconsistent with the relevant objectives and actions of any applicable recovery plans or threat abatement plans (refer to Section 7.9), based on the adopted controls. Regard has been given to relevant conservation advice during the assessment of potential risks.</p> <p>Marine species such as cetaceans, whale sharks and turtles have been identified, during consultation for this EP as well as for other Woodside activities, as a cultural value for Traditional Custodians. Given impacts on a population level are not expected to occur, cultural values and intangible cultural heritage associated with these species are expected to be maintained.</p> <p>Woodside considers the adopted controls appropriate to manage the impacts and risks of vessel collision with marine fauna to a level that is broadly acceptable.</p>

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Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
EPO 13 No vessel strikes with marine fauna (whales, whale sharks and turtles) during the Petroleum Activities Program.	C 4.1 Refer to Section 7.7.3	PS 4.1 Refer to Section 7.7.3	MC 4.1.1 Refer to Section 7.7.3
		PS 13.2 All vessel strike incidents with cetaceans, whale sharks and marine turtles will be reported in the National Ship Strike Database (as outlined in the Conservation Management Plan for the Blue Whale – Recovery Plan under the EPBC Act 1999, Commonwealth of Australia, 2015).	MC 13.1.2 Records demonstrate reporting cetacean, whale sharks and marine turtles ship strike incidents to the National Ship Strike Database.

7.8.7 Physical Presence: Introduction and Establishment of Invasive Marine Species

Context														
Project Vessels – Section 4.8				Physical Environment – Section 5.1.4 Biological Environment – Section 5.5				Stakeholder Consultation – Section 6						
Impact Evaluation Summary														
Source of Impact	Environmental Value Potentially Impacted							Evaluation						
	Soil and Groundwater	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socioeconomic	Decision Type	Consequence/Impact	Likelihood	Current Risk Rating	ALARP Tools	Acceptability	Outcomes
Introduction and establishment of invasive marine species (IMS)				X	X	X	X	A	D	0	L	LCS GP	Broadly Acceptable	EPO 14
Description of Source of Risk														
<p>During the Petroleum Activities Program, vessels have the potential to introduce IMS to the Operational Areas. Project vessels will be transiting to and from the Operational Areas, potentially including traffic mobilising from international waters. There is the potential for project vessels to transfer IMS from international waters, Australian waters or coastal waters into the Operational Areas.</p> <p>All vessels are subject to some level of marine fouling. Organisms attach to the vessel hull, particularly in areas where organisms can find a good attachment surface (such as seams, strainers and unpainted surfaces) or where turbulence is lowest (such as niches, sea chests). Commercial vessels typically maintain anti-fouling coatings to reduce the build-up of fouling organisms. Organisms can also be drawn into ballast tanks during onboarding of ballast water required to maintain safe operating conditions.</p> <p>Project vessels have the potential to introduce IMS to the Operational Areas through marine biofouling (containing IMS) on vessels, as well as within high-risk ballast water exchange. There is also a remote potential that cross-contamination between vessels can also occur (such as IMS translocated between project vessels) during times when vessels need to be alongside each other and a remote potential that IMS may be transferred onto the benthic habitat at the Angel-3 Operational Area.</p>														

Impact Assessment
Potential Impacts to Environmental Values
<p>IMS are a subset of non-indigenous marine species (NIMS) that have been introduced into a region beyond their natural biogeographic range, resulting in impacts to socio-cultural, human health, economic or environmental values. NIMS are species that have the ability to survive, reproduce and establish founder populations. However, not all NIMS introduced into an area will thrive or cause demonstrable impacts. The majority of NIMS around the world are relatively benign and few have spread widely beyond sheltered ports and harbours. NIMS are only considered IMS when they result in impacts to environmental values or have socio-cultural, economic or human health impacts.</p> <p>Once introduced, IMS may prey on local species (which had previously not been subject to this kind of predation and therefore not have evolved protective measures against the attack), they may outcompete indigenous species for food, space or light, and can also interbreed with local species, creating hybrids such that the endemic species is lost. These changes to the local marine environment result in changes to the natural ecosystem.</p> <p>IMS have also proven economically damaging to areas where they have been introduced and established. Such impacts include direct damage to assets (fouling of vessel hulls and infrastructure) and depletion of commercially harvested marine life (such as shellfish stocks). IMS have proven particularly difficult to eradicate from areas once</p>

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established. If the introduction is detected early, eradication may be effective but is likely to be expensive, disruptive and, depending on the method of eradication, harmful to other local marine life.

Potential IMS have historically been introduced and translocated around Australia by a variety of natural and human means, including marine fouling and ballast water. Potential IMS vary from one region to another depending on various environmental factors such as water temperature, salinity, nutrient levels and habitat type, which dictate their survival and invasive capabilities. IMS typically require hard substrate in the photic zone; therefore, requiring shallow waters to become established. Highly disturbed, shallow-water environments such as shallow coastal waters, ports and marinas are more susceptible to IMS colonisation, whereas IMS are generally unable to successfully establish in deepwater ecosystems and open-water environments where the rate of dilution and the degree of dispersal are high (Williamson and Fitter, 1996; Paulay *et al.*, 2002; Geiling, 2014).

Project vessels have the potential to introduce IMS into the Operational Areas. Water depths and absence of hard substrate in the majority of Operational Areas are not conducive to the establishment of IMS. However, during the removal of Angel-3 wellhead, there is an increased potential for the establishment of IMS, given the water depth (69 m) and this wellhead's Operational Area also overlaps with the Glomar Shoals KEF and thus the potential for hard substrate to be encountered.

Glomar Shoals is a submerged feature at depths of 33 to 77 m (Falkner *et al.*, 2009). Benthic habitats of Glomar Shoals vary with depth and are characterised by coarse, unconsolidated sediment at depths greater than 60 m to hard substrate supporting benthic communities comprising sparse hard and soft corals, sponges and macroalgae at depths less than 40 m. Total cover of benthic taxa (hard coral, soft coral, sponges and other benthic biota) is highest at depths less than 40 m and decreases with depth (Wahab *et al.*, 2018). At depths of 60 to 80 m, benthic cover is low and approximately 2%; at depths greater than 80 m, benthic cover is barely present, with baseline survey data indicating 0.1% cover of benthic biota. Structurally complex, biodiverse benthic habitats associated with the Glomar Shoals feature itself are mainly found within the north-eastern section of the Glomar Shoals KEF.

Approximately 0.9% of the Glomar Shoals KEF overlaps the Angel-3 Operational Area (in the north-western section of the KEF), refer to Figure 5-12, with the Glomar Shoals feature located more than 15 km from the Angel-3 Operational Area. Given the Angel-3 wellhead is located at a depth of 69 m (water depth where benthic cover is less than 2%), and is located 15 km from hard coral communities associated with the Glomar feature itself, the likelihood of IMS being introduced and establishing viable populations within this Operational Area or immediate surrounds is considered remote.

Depending on prevailing currents, the larval life history of the IMS, and the recruitment potential based on a variety of factors, including propagule pressure, there is a remote likelihood that an IMS may be carried to and establish within the shallower waters of the Glomar Shoals (less than 50 m depth), where available substrate and light could facilitate establishment and growth.

Shallow-water marine habitats, such as coral reefs, are considered susceptible to the introduction and subsequent establishment of IMS due to the availability of light and complex habitats. It must, however, be noted that healthy natural reef ecosystems may also present challenges to IMS establishment relative to degraded shallow water environments due to the increased likelihood of predation and competition. However, IMS introduced to shallow water marine habitats are, therefore, much more likely to successfully establish than those introduced to deep oceanic waters. Overall, the benthic habitats of Glomar Shoals are considered pristine and host regionally distinct ecological communities. Given this sensitivity, the consequence of the introduction and successful establishment of an IMS has been determined as a consequence level of Minor (D). The likelihood that an IMS would be introduced, establish a self-sustaining population and cause environmental impacts is considered remote given:

- Project vessels will be subject to the Woodside IMS risk assessment process. This process aligns with the approach adopted by WA DPIRD (such as vessel check tool) and has been proven effective in minimising the potential for IMS introduction. Woodside has successfully implemented this process for several large construction projects and ongoing operations over the last decade.
- There remains a significant distance (more than 15 km) from the Angel-3 Operational Area to the closest shallow water habitat (Glomar Shoals) that may be susceptible to the introduction and subsequent establishment of IMS, further reducing the likelihood of the establishment of IMS.
- The short duration (ten days) of operations further reduces the risk of IMS introduction and subsequent establishment.

The deep offshore open waters of the other 35 Operational Areas (which are more than 70 m deep) are not conducive to the settlement and establishment of IMS. Furthermore, these Operational Areas are away from shorelines and critical habitat. The likelihood of IMS being introduced and establishing viable populations within these Operational Areas or immediate surrounds is considered remote.

Cumulative Impacts

Since removal of each wellhead and associated infrastructure will be conducted sequentially rather than concurrently, and given the low-level impacts expected, cumulative impacts to receptors are not expected.

Summary of Potential Impacts to Environmental Value(s)

In support of Woodside’s assessment of the risks and consequences of IMS introduction associated with the Petroleum Activities Program, Woodside conducted a risk and impact evaluation of the different aspects of an IMS translocation. The results of this assessment are presented in Table 7-8.

As a result of this assessment, Woodside has assessed the potential consequence and likelihood after implementing the identified controls. This assessment concluded that the highest potential consequence is an ‘D’ and the likelihood is ‘Remote’ (0), resulting in an overall ‘Moderate’ risk.

Table 7-8: Evaluation of risks and impacts from marine pest translocation

IMS Introduction Location	Credibility of Introduction	Consequence of Introduction	Likelihood
Introduced to Operational Areas and establishment on the seafloor or subsea structures.	Credible There is potential for the transfer of marine pests to the seafloor within the Angel-3 Operational Area.	Environment – D While highly unlikely, introduction and establishment of IMS at Glomar Shoals from vessel operations during removal activity of Angel-3 wellhead could result in loss of native species, should they be outcompeted or predated by the IMS.	Remote (0) Due to control measures in place, the likelihood of an IMS being introduced at the Angel-3 wellhead location during vessel operations is considered highly unlikely.
Introduced to Operational Areas and establishment on a project vessel.	Credible There is potential for the transfer of marine pests between project vessels within the Operational Areas.	Environment – Not credible The translocation of IMS from a colonised project vessel to another vessel and then to the environment is not credible. This is because the Operational Areas are in deep open waters away from shorelines and/or critical habitat. Furthermore, the translocation to shallower environments via natural dispersion from a project vessel is not considered credible, given the distances of the Operational Areas from nearshore environments (i.e. greater than 50 m water depth). On this basis there is no credible environmental risk. Reputation – D If IMS were to establish on a project vessel from another colonised vessel, this could potentially impact the vessel operationally through the fouling of intakes, and potentially cause the infected vessels to be quarantined and requiring costly cleaning. Such introduction would be expected to have minor impact to Woodside’s reputation, particularly with Woodside’s contractors, and may impact future proposals.	Remote (0) Interactions between project vessel will be limited during the Petroleum Activities Program, with minimum 500 m safety exclusion zones being adhered to around the activity, and interactions limited to short periods of time alongside (as in, during backloading, bunkering activities). There is also no direct contact (in other words, they are not tied up alongside) during these activities. Spread of marine pests via ballast water or spawning in these open ocean environments is also considered remote.
Transferred between project vessels and from project vessels to other marine environments beyond the Operational Areas.	Not Credible This risk is considered so remote that it is not credible for the purposes of the activity. As described above, the transfer of IMS between project vessels was already considered remote, given the offshore open-ocean environment. Project vessels will be located in an offshore, open-ocean, deep environment, where IMS survival is implausible. Furthermore, this marine pest once transferred would need to survive on a new vessel with good vessel hygiene (in other words, has been through Woodside’s risk assessment process) and survive the transport back from the Operational Areas to shore. In the event it was to survive this trip, it would then need conditions conducive to establishing a viable population in the nearshore waters to which the infected vessel travels.		

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) ⁴⁴	Benefit/Reduction in Impact	Proportionality	Control Adopted
Legislation, Codes and Standards				
Project vessels will manage their ballast water using one of the approved ballast water management options, as outlined in the Australian Ballast Water Management Requirements.	F: Yes. CS: Minimal cost. Standard practice.	Reduces the likelihood of transferring marine pests between project vessels within the Operational Areas. No change in consequence would occur.	Controls based on legislative requirements under the <i>Biosecurity Act 2015</i> – must be adopted.	Yes C 14.1
Good Practice				
Woodside’s IMS risk assessment process ⁴⁵ will be applied to the project vessels and relevant immersible equipment undertaking the Petroleum Activities Program. Assessment will consider these risk factors: For vessels: <ul style="list-style-type: none"> vessel type recent IMS inspection and cleaning history, including for internal niches out-of-water period before mobilisation age and suitability of antifouling coating at mobilisation date internal treatment systems and history origin and proposed area of operation number of stationary or slow speed periods greater than seven days region of stationary or slow periods type of activity – contact with seafloor. Based on the outcomes of each IMS risk assessment, management measures commensurate with the risk (such as treating internal systems, IMS	F: Yes. CS: Minimal cost. Good practice implemented across all Woodside Operations.	Identifies potential risks and additional controls implemented accordingly. In doing so, the likelihood of transferring marine pests between project vessels within the Operational Areas is reduced. No change in consequence would occur.	Benefits outweigh cost/sacrifice.	Yes C 14.2

⁴⁴ Qualitative measure

⁴⁵ Woodside’s IMS risk assessment process was developed with regard to the national biofouling management guidelines for the petroleum production and exploration industry and guidelines for the control and management of a ships’ biofouling to minimise the transfer of invasive aquatic species (IMO Guidelines, 2011).

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴⁴	Benefit/Reduction in Impact	Proportionality	Control Adopted
inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.				
Professional Judgement – Eliminate				
Do not discharge ballast water during the Petroleum Activities Program.	F: No. Ballast water discharges are critical for maintaining vessel stability. Given the nature of the Petroleum Activities Program, the use of ballast (including its potential discharge) is considered to be a safety-critical requirement. CS: Not assessed, control not feasible.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
Eliminate use of vessels.	F. No. Given vessels must be used to complete the Petroleum Activities Program, there is no feasible means to eliminate the source of risk. CS. Loss of the project.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
Professional Judgement – Substitute				
Source project vessels based in Australia only.	F. Potentially. Limiting activities to only use local project vessels could potentially pose a significant risk in terms of the time and duration of sourcing a vessel, as well as the ability of the local vessel to perform the tasks. While the project will attempt to source support vessels locally, it is not always possible. Availability cannot always be guaranteed. There are limited project vessels based in Australian waters and sourcing Australian-based vessels only will cause increases in cost due to pressures of vessel availability. CS: Significant cost and schedule impacts due to supply restrictions.	Sourcing vessels from within Australia will reduce the likelihood of IMS introduction from outside Australian waters; however, it does not reduce the likelihood of introducing species native to Australia but alien to the Operational Areas. It also does not prevent the translocation of IMS that have established elsewhere in Australia. Therefore, the consequence is unchanged.	Disproportionate. Sourcing vessels from Australian waters may result in a slight reduction in the likelihood of introducing IMS to the Operational Areas; however, it does not completely eliminate the risk. Furthermore, the potential cost of implementing this control could be high, given the potential supply issues associated with only locally sourcing vessels.	No

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)⁴⁴	Benefit/Reduction in Impact	Proportionality	Control Adopted
IMS inspection of all vessels.	F: Yes. CS: Significant cost and schedule impacts. In addition, Woodside's IMS risk assessment process is seen to be more cost-effective as this control allows Woodside to manage the introduction of IMS through biofouling, while targeting efforts and resources to the areas of greatest concern.	Inspection of all vessels for IMS would reduce the likelihood of IMS being introduced to the Operational Areas. However, this reduction is unlikely to be significant, given the other control measures implemented. No change in consequence would occur.	Disproportionate. The cost/sacrifice outweighs the benefit gained, as other controls that are proposed to be implemented achieve ALARP position.	No
Professional Judgement – Engineered Solution				
None identified.				
ALARP Statement				
On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (in other words, Decision Type A), Woodside considers the adopted controls appropriate to manage the risks and consequences of IMS introduction. As no reasonable additional or alternative controls were identified that would further reduce the risks and consequences without disproportionate sacrifice, the risks and consequences are considered ALARP.				

Demonstration of Acceptability
Acceptability Statement
The impact assessment has determined that, given the adopted controls, introduction of IMS to the Operational Areas through ballast water or biofouling on vessels represents a low residual risk that has a remote likelihood of resulting in a potential impact greater than minor, short-term impact (one to two years) to a small proportion of the benthic community. Further opportunities to reduce the impacts and risks have been investigated above.
The adopted controls are considered good oil-field practice/industry best practice. The potential impacts and risks are considered broadly acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks of introducing IMS to the Operational Areas to a level that is broadly acceptable.

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
EPO 14 No introduction and establishment of invasive marine species into the Operational Areas as a result of the Petroleum Activities Program.	C 14.1 Project vessels will manage their ballast water using one of the approved ballast water management options, as outlined in the Australian Ballast Water Management Requirements.	PS 14.1 Project vessels will manage ballast water in accordance with Australian Ballast Water Management Requirements	MC 14.1.1 Ballast Water Records System maintained by vessels which verifies compliance against Australian Ballast Water Management Requirements.
	C 14.2 Woodside's IMS risk assessment process ⁴⁶ will be applied to project vessels and relevant	PS 14.2 Before entering the Operational Areas, project vessels and relevant immersible equipment are	MC 14.2.1 Records of IMS risk assessments maintained for all project vessels and relevant immersible

⁴⁶ Woodside's IMS risk assessment process was developed with regard to the national biofouling management guidelines for the petroleum production and exploration industry and guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species (IMO Guidelines, 2011).

Environmental Performance Outcomes, Standards and Measurement Criteria			
Outcomes	Controls	Standards	Measurement Criteria
	immersible equipment undertaking the Petroleum Activities Program. Assessment will consider these risk factors: For vessels: <ul style="list-style-type: none"> vessel type recent IMS inspection and cleaning history, including for internal niches out-of-water period before mobilisation age and suitability of antifouling coating at mobilisation date internal treatment systems and history origin and proposed area of operation number of stationary or slow speed periods greater than seven days region of stationary or slow periods type of activity – contact with seafloor. For immersible equipment: <ul style="list-style-type: none"> region of deployment since last thorough clean, particularly coastal locations duration of deployments duration of time out of water since last deployment transport conditions during mobilisation post-retrieval maintenance regime. Based on the outcomes of each IMS risk assessment, management measures commensurate with the risk (such as treating internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.	determined to be low risk ⁴⁷ of introducing IMS of concern, and maintain this low risk status to mobilisation. PS 14.3 In accordance with Woodside’s IMS risk assessment process, the IMS risk assessments will be undertaken by an authorised Environment Adviser who has completed relevant Woodside IMS training or by qualified and experienced IMS inspector.	equipment entering the Operational Areas to undertake the Petroleum Activities Program. MC 14.3.1 Records confirm the IMS risk assessments undertaken by an Environment Adviser or IMS inspector (as relevant).

⁴⁷ Low risk of introducing IMS of concern is defined as either no additional management measures required or, management measures have been applied to reduce the risk.

7.9 Recovery Plan and Threat Abatement Plan Assessment

As described in Section 1.8.1.3.1, NOPSEMA will not accept an EP that is inconsistent with a recovery plan or threat abatement plan for a listed threatened species or ecological community. This section describes the assessment Woodside has undertaken to demonstrate the Petroleum Activities Program is not inconsistent with any relevant recovery plans or threat abatement plans (Section 2.8).

For the purposes of this assessment, the relevant Part 13 statutory instruments (recovery plans and threat abatement plans) are:

- Recovery Plan for Marine Turtles in Australia 2017–2027 (Commonwealth of Australia, 2017)
- Conservation Management Plan for the Blue Whale 2015–2025 (Commonwealth of Australia, 2015a)
- Recovery Plan for the Grey Nurse Shark (*Carcharias taurus*) 2014 (Commonwealth of Australia, 2014)
- Sawfishes and River Sharks Multispecies Recovery Plan (Commonwealth of Australia, 2015b)
- Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans 2018 (Commonwealth of Australia, 2018).

Table 7-9 lists the objectives and (where relevant) the action areas of these plans, and also describes whether these objectives and action areas are applicable to government, the Titleholder, or the Petroleum Activities Program. For those objectives and action areas applicable to the Petroleum Activities Program, the relevant actions of each plan have been identified, and an evaluation has been conducted as to whether impacts and risks resulting from the activity are not inconsistent with that action. The results of this assessment against relevant actions are presented in Table 7-10 to Table 7-14.

Table 7-9: Identification of applicability of recovery plan and threat abatement plan objectives and action areas

EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	Petroleum Activities Program
Marine Turtle Recovery Plan			
Long-term Recovery Objective: Minimise anthropogenic threats to allow for the conservation status of marine turtles to improve so they can be removed from the EPBC Act threatened species list	Y	Y	Y
Interim Recovery Objectives			
Current levels of legal and management protection for marine turtle species are maintained or improved, both domestically and throughout the migratory range of Australia's marine turtles	Y		
The management of marine turtles is supported	Y		
Anthropogenic threats are demonstrably minimised	Y	Y	Y
Trends in nesting numbers at index beaches and population demographics at important foraging grounds are described	Y	Y	
Action Areas			
A. Assessing and addressing threats			
A1. Maintain and improve efficacy of legal and management protection	Y		
A2. Adaptively manage turtle stocks to reduce risk and build resilience to climate change and variability	Y		
A3. Reduce the impacts of marine debris	Y	Y	Y
A4. Minimise chemical and terrestrial discharge	Y	Y	Y
A5. Address international take within and outside Australia's jurisdiction	Y		
A6. Reduce impacts from terrestrial predation	Y		
A7. Reduce international and domestic fisheries bycatch	Y		
A8. Minimise light pollution	Y	Y	Y
A9. Address the impacts of coastal development/infrastructure and dredging and trawling	Y	Y	
A10. Maintain and improve sustainable Indigenous management of marine turtles	Y		
B. Enabling and measuring recovery			

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	Petroleum Activities Program
B1. Determine trends in index beaches	Y	Y	Y
B2. Understand population demographics at key foraging grounds	Y		
B3. Address information gaps to better facilitate the recovery of marine turtle stocks	Y	Y	Y
Blue Whale Conservation Management Plan			
Long-term recovery objective: Minimise anthropogenic threats to allow for their conservation status to improve so they can be removed from the EPBC Act threatened species list	Y	Y	Y
Interim Recovery Objectives			
The conservation status of blue whale populations is assessed using efficient and robust methodology	Y		
The spatial and temporal distribution, identification of BIAs, and population structure of blue whales in Australian waters is described	Y	Y	Y
Current levels of legal and management protection for blue whales are maintained or improved and an appropriate adaptive management regime is in place	Y		
Anthropogenic threats are demonstrably minimised	Y	Y	Y
Action Areas			
A. Assessing and addressing threats			
A.1: Maintain and improve existing legal and management protection	Y		
A.2: Assess and address anthropogenic noise	Y	Y	Y
A.3: Understand impacts of climate variability and change	Y		
A.4: Minimise vessel collisions	Y	Y	Y
B. Enabling and measuring recovery			
B.1: Measure and monitor population recovery	Y		
B.2: Investigate population structure	Y		
B.3: Describe spatial and temporal distribution and define biologically important habitat	Y	Y	Y

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	Petroleum Activities Program
Grey Nurse Shark Recovery Plan			
Overarching Objective			
To assist the recovery of the grey nurse shark in the wild, throughout its range in Australian waters, with a view to: <ul style="list-style-type: none"> improving the population status, leading to future removal of the grey nurse shark from the threatened species list of the EPBC Act ensuring anthropogenic activities do not hinder the recovery of the grey nurse shark in the near future, or impact on the conservation status of the species in the future 	Y	Y	Y
Specific Objectives			
Develop and apply quantitative monitoring of the population status (distribution and abundance) and potential recovery of the grey nurse shark in Australian waters	Y		
Quantify and reduce the impact of commercial fishing on the grey nurse shark through incidental (accidental or illegal) take, throughout its range	Y		
Quantify and reduce the impact of recreational fishing on the grey nurse shark through incidental (accidental or illegal) take, throughout its range	Y		
Where practicable, minimise the impact of shark control activities on the grey nurse shark	Y		
Investigate and manage the impact of ecotourism on the grey nurse shark	Y		
Manage the impact of aquarium collection on the grey nurse shark	Y		
Improve understanding of the threat of pollution and disease to the grey nurse shark	Y	Y	Y
Continue to identify and protect habitat critical to the survival of the grey nurse shark and reduce the impact of threatening processes within these areas	Y	Y	
Continue to develop and implement research programs to support the conservation of the grey nurse shark	Y	Y	
Promote community education and awareness in relation to grey nurse shark conservation and management	Y		

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	Petroleum Activities Program
Sawfish and River Sharks Recovery Plan			
Primary Objective			
To assist the recovery of sawfish and river sharks in Australian waters with a view to: <ul style="list-style-type: none"> improving the population status leading to the removal of the sawfish and river shark species from the threatened species list of the EPBC Act ensuring anthropogenic activities do not hinder recovery in the near future, or impact on the conservation status of the species in the future 	Y	Y	Y
Specific Objectives			
Reduce and, where possible, eliminate adverse impacts of commercial fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of recreational fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of Indigenous fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate the impact of illegal, unregulated and unreported fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of habitat degradation and modification on sawfish and river shark species	Y	Y	Y
Reduce and, where possible, eliminate any adverse impacts of marine debris on sawfish and river shark species, noting the linkages with the Threat Abatement Plan for the Impact of Marine Debris on Vertebrate Marine Life	Y	Y	Y
Reduce and, where possible, eliminate any adverse impacts of collection for public aquaria on sawfish and river shark species	Y		
Improve the information base to allow the development of a quantitative framework to assess the recovery of, and inform management options for, sawfish and river shark species	Y		
Develop research programs to assist conservation of sawfish and river shark species	Y	Y	
Improve community understanding and awareness in relation to sawfish and river shark conservation and management	Y		
Marine Debris Threat Abatement Plan			
Objectives			
Contribute to long-term prevention of the incidence of marine debris	Y	Y	

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	Petroleum Activities Program
Understand the scale of impacts from marine plastic and microplastic on key species, ecological communities and locations	Y	Y	Y
Remove existing marine debris	Y		
Monitor the quantities, origins, types and hazardous chemical contaminants of marine debris, and assess the effectiveness of management arrangements for reducing marine debris	Y		
Increase public understanding of the causes and impacts of harmful marine debris, including microplastic and hazardous chemical contaminants, to bring about behaviour change	Y		

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Table 7-10: Assessment against relevant actions of the Marine Turtle Recovery Plan

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Marine Turtle Recovery Plan	<p>Action Area A3: Reduce the impacts from marine debris.</p>	<p>Action: Support the implementation of the Marine Debris Threat Abatement Plan.</p> <p>Priority actions at stock level:</p> <ul style="list-style-type: none"> • G-NWS – Understand the threat posed to this stock by marine debris • LH-WA – Determine the extent to which marine debris is impacting loggerhead turtles. • F-Pil – No relevant actions. 	<p>Refer Section 7.8.4.</p> <p>Not inconsistent assessment: The assessment of accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to marine turtles.</p>	<p>EPO 8</p> <p>C 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11</p> <p>PS 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11</p>
	<p>Action Area A4: Minimise chemical and terrestrial discharge.</p>	<p>Action: Ensure spill risk strategies and response programs adequately include management for marine turtles and their habitats, particularly in reference to 'slow to recover habitats', such as nesting habitat, seagrass meadows or coral reefs.</p> <p>Priority actions at stock level:</p> <ul style="list-style-type: none"> • G-NWS – Ensure spill risk strategies and response programs include management for turtles and their habitats. • LH-WA and F-Pil – Ensure spill risk strategies and response programs include management for turtles and their habitats, particularly in reference to slow-to-recover habitats, such as seagrass meadows or corals. 	<p>Refer Sections 7.8.2 and 7.8.3.</p> <p>Not inconsistent assessment: The assessment of accidental release of chemicals and hydrocarbons has considered the potential risks to marine turtles. Spill risk strategies and response program include management measures for turtles and their nesting habitats.</p>	<p>Refer Section 8.9.</p> <p>Detailed oil spill preparedness and response performance outcomes, standards and measurement criteria for the Petroleum Activities Program are in Appendix D.</p>

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Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
	<p>Action Area A8: Minimise light pollution.</p>	<p>Action: Artificial light within or adjacent to habitat critical to the survival of marine turtles will be managed such that marine turtles are not displaced from these habitats.</p> <p>Priority actions at stock level:</p> <ul style="list-style-type: none"> • G-NWS – As above. • LH-WA – No relevant actions. • F-Pil – Manage artificial light from onshore and offshore sources to ensure biologically important behaviours of nesting adults and emerging and dispersing hatchlings can continue. 	<p>Refer Section 7.7.6.</p> <p>Not inconsistent assessment: The assessment of light emissions has considered the potential impacts to marine turtles. Internesting, mating, foraging or migrating turtles are not impacted by light from offshore vessels. Vessel light emissions will not result in impacts to nesting marine turtles or emerging hatchlings at nesting beaches. Transient individuals occurring within the Operational Areas are not undertaking behaviours guided by light cues, reducing the potential impacts to these individuals.</p>	<p>N/A</p>
	<p>Action Area B1: Determine trends at index beaches.</p>	<p>Action: Maintain or establish long-term monitoring programs at index beaches to collect standardised data critical for determining stock trends, including data on hatchling production.</p> <p>Priority actions at stock level:</p> <ul style="list-style-type: none"> • G-NWS – Continue long-term monitoring of index beaches. • LH-WA – Continue long-term monitoring of nesting and foraging populations. • F-Pil – No relevant actions. 	<p>Not inconsistent assessment: Woodside contributes to Action Area B1 via its support of the Ningaloo Turtle Program⁴⁸.</p>	<p>N/A</p>

⁴⁸ http://www.ningalooturtles.org.au/media_reports.html

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
	<p>Action Area B3: Address information gaps to better facilitate the recovery of marine turtle stocks.</p>	<p>Action: Understand the impacts of anthropogenic noise on marine turtle behaviour and biology</p> <p>Priority actions at stock level:</p> <ul style="list-style-type: none"> • G-NWS – Given this is a relatively accessible stock that is likely to be exposed to anthropogenic noise, investigate the impacts of anthropogenic noise on turtle behaviour and biology and extrapolate findings from the NWS stock to other stocks. • LH-WA – No relevant actions. • F-Pil – No relevant actions. 	<p>Refer Section 7.7.3.</p> <p>Not inconsistent assessment: The assessment of acoustic emissions has considered the potential impacts to turtles that may occur within the vicinity of the Operational Areas. Acoustic emissions could cause localised and short-term behavioural disturbance to isolated transient individuals; however, acoustic emissions are not expected to be detectable in aggregating areas such as interesting habitat, considering the distance to the nearest BIA (40 km).</p>	<p>N/A</p>

Assessment Summary

The Marine Turtle Recovery Plan has been considered during the assessment of impacts and risks, and the Petroleum Activities Program is not considered to be inconsistent with the relevant actions of this plan.

Table 7-11: Assessment against relevant actions of the Blue Whale Conservation Management Plan

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Blue Whale Conservation Management Plan	Action Area A.2: Assess and address anthropogenic noise.	Action 2: Assess the effect of anthropogenic noise on blue whale behaviour. Action 3: Anthropogenic noise in BIAs will be managed such that any blue whale continues to use the area without injury and is not displaced from a foraging area.	Refer Section 7.7.3. Not inconsistent assessment: The assessment of acoustic emissions has considered the potential impacts to pygmy blue whales.	N/A
	Action Area A.4: Minimise vessel collisions.	Action 3: Ensure the risk of vessel strikes on blue whales is considered when assessing actions that increase vessel traffic in areas where blue whales occur and, if required, appropriate mitigation measures are implemented.	Refer Section 7.8.5. Not inconsistent assessment: The assessment of vessel collision with marine fauna has considered the potential risks to pygmy blue whales. No aggregations of this species, or migration routes, overlap the Operational Areas. Vessel collisions with pygmy blue whales are highly unlikely to occur, given the very slow vessel speeds.	EPO 9 C 9.1 PS 9.1
	Action Area B.3: Describe spatial and temporal distribution and define BIA.	Action 2: Identify migratory pathways between breeding and feeding grounds. Action 3: Assess timing and residency within BIAs.	Not inconsistent assessment: Woodside contributes to Action Area B.3 via its support of targeted research initiatives (such as satellite tracking of pygmy blue whale migratory movements ⁴⁹).	N/A
<p>Assessment Summary</p> <p>The Blue Whale Conservation Management Plan has been considered during the assessment of impacts and risks, and the Petroleum Activities Program is not considered to be inconsistent with the relevant actions of this plan.</p>				

⁴⁹ Double, M.C., Andrews-Goff, V., Jenner, K.C.S., Jenner, M.-N., Laverick, S.M., Branch, T.A., Gales, N.J., 2014. Migratory movements of pygmy blue whales (*Balaenoptera musculus brevicauda*) between Australia and Indonesia as revealed by satellite telemetry. *PLoS One* 9, e93578

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Table 7-12: Assessment against relevant actions of the Sawfish and River Shark Recovery Plan

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Sawfish and River Shark Recovery Plan	<p>Objective 5: Reduce and, where possible, eliminate adverse impacts of habitat degradation and modification on sawfish and river shark species.</p>	<p>Action 5c: Identify risks to important sawfish and river shark habitat and measures needed to reduce those risks.</p>	<p>Refer Sections 7.8.2 and 7.8.3. Not inconsistent assessment: The assessment of accidental release of chemicals and hydrocarbons has considered the potential risks to sawfish.</p>	<p>Refer Section 8.9. Detailed oil spill preparedness and response performance outcomes, standards and measurement criteria for the Petroleum Activities Program are in Appendix D.</p>
	<p>Objective 6: Reduce and, where possible, eliminate any adverse impacts of marine debris on sawfish and river shark species.</p>	<p>Action 6a: Assess the impacts of marine debris, including ghost nets, fishing gear and plastics, on sawfish and river shark species.</p>	<p>Refer Section 7.8.4. Not inconsistent assessment: The assessment of accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to sawfish.</p>	<p>EPO 8 C 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11 PS 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11</p>
<p>Assessment Summary The Sawfish and River Shark Recovery Plan has been considered during the assessment of impacts and risks, and the Petroleum Activities Program is not considered to be inconsistent with the relevant actions of this plan.</p>				

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Table 7-13: Assessment against relevant actions of the Grey Nurse Shark Recovery Plan

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Grey Nurse Shark Recovery Plan	Objective 7: Improve understanding of the threat of pollution and disease to the grey nurse shark.	Action 7.1: Review and assess the potential threat of introduced species, pathogens and pollutants.	Refer to Sections 7.7.5, 7.7.6, 7.8.2 and 7.8.3. Not inconsistent assessment: The assessment of accidental release of chemicals and hydrocarbons has considered the potential risks to grey nurse sharks.	Refer Section 8.9. Detailed oil spill preparedness and response performance outcomes, standards and measurement criteria for the Petroleum Activities Program are in Appendix D.
<p>Assessment Summary The Grey Nurse Shark Recovery Plan has been considered during the assessment of impacts and risks, and the Petroleum Activities Program is not considered to be inconsistent with the relevant actions of this plan.</p>				

Table 7-14: Assessment against relevant actions of the Marine Debris Threat Abatement Plan

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Marine Debris Threat Abatement Plan	Objective 1: Contribute to long-term prevention of marine debris.	Action 1.2: Limit the amount of single use plastic material lost to the environment in Australia.	Refer to Section 7.8.4. Not inconsistent assessment: The assessment of accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to vertebrate wildlife.	EPO 8 C 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11 PS 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11
<p>Assessment Summary</p> <p>The Marine Debris Threat Abatement Plan has been considered during the assessment of impacts and risks, and the Petroleum Activities Program is not considered to be inconsistent with the relevant actions of this plan.</p>				

8 IMPLEMENTATION STRATEGY

8.1 Overview

Regulation 14 of the Environment Regulations requires an EP to contain an implementation strategy for the activity. The implementation strategy for the Petroleum Activities Program confirms fit-for-purpose systems, practices and procedures are in place to direct, review and manage the activities so environmental risks and impacts are continually being reduced to ALARP and are acceptable, and that EPOs and EPSs outlined in this EP are achieved.

Woodside, as Operator, is responsible for ensuring the Petroleum Activities Program is managed in accordance with this implementation strategy and the WMS (see Section 1.7).

8.2 Systems, Practice and Procedures

All operational activities are planned and performed in accordance with relevant legislation and standards, management measures identified in this EP and internal environment standards and procedures (Section 6).

The systems, practices and procedures that will be implemented are listed in the EPSs contained in this EP. Document names and reference numbers may change during the statutory duration of this EP and is managed through a change register and update process.

8.3 Roles and Responsibilities

Key roles and responsibilities for Woodside and contractor personnel relating to implementing, managing and reviewing this EP are described in Table 8-1. Roles and responsibilities for oil spill preparation and response are outlined in Appendix D and the [Woodside Oil Pollution Emergency Arrangements \(Australia\)](#).

Table 8-1: Roles and responsibilities

Title (role)	Environmental Responsibilities
Office-based Personnel	
Woodside Project Manager	<ul style="list-style-type: none"> • Monitor and manage the Petroleum Activities Program so it is performed as per the relevant standards and commitments in this EP. • Notify the Woodside Environment Adviser in a timely manner of any scope changes. • Liaise with regulatory authorities as required. • Review this EP as necessary and manage change requests. • Ensure all project and support vessel crew members complete an HSE induction. • Verify that contractors meet environmental-related contractual obligations. • Confirm environmental incident reporting meets regulatory requirements (as outlined in this EP) and Woodside's HSE Reporting and Investigation Procedure. • Monitor and close out corrective actions identified during environmental monitoring or audits.
Woodside Environmental Adviser	<ul style="list-style-type: none"> • Verify relevant Environmental Approvals for the activities exist before commencing the Petroleum Activities Program. • Track compliance with performance outcomes and performance standards as per the requirements of this EP. • Prepare environmental component of relevant Induction Package. • Assist with the review, investigation and reporting of environmental incidents. • Ensure environmental monitoring and inspections and audits are performed as per the requirements of this EP. • Liaise with relevant regulatory authorities as required. • Assist in preparing required external regulatory reports, in line with environmental approval requirements and Woodside incident reporting procedures. • Monitor and close out corrective actions (Campaign Action Register) identified during environmental monitoring or audits. • Provide advice to relevant Woodside personnel and contractors to help them understand their environmental responsibilities. • Liaise with contractors to ensure communication and understanding of environmental requirements as outlined in this EP and in line with Woodside's Compass values and management systems.
Woodside Corporate Affairs Adviser	<ul style="list-style-type: none"> • Prepare and implement the Stakeholder Consultation Plan for the Petroleum Activities Program. • Report on stakeholder consultation. • Continuously liaise and provide notification as required as outlined in this EP.
Woodside Marine Assurance Lead	<ul style="list-style-type: none"> • Conduct relevant audit and inspection to confirm vessels comply with relevant Marine Orders and Woodside Marine Charters Instructions requirements to meet safety, navigation and emergency response requirements.

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Title (role)	Environmental Responsibilities
Woodside Corporate Incident Coordination Centre (CICC) Duty Manager	<p>On receiving notification of an incident, the Woodside CICC Duty Manager shall:</p> <ul style="list-style-type: none"> • Establish and take control of the Incident Management Team and establish an appropriate command structure for the incident • Assess the situation, identify risks and actions to minimise the risk • Communicate impact, risk and progress to the Crisis Management Team and stakeholders • Develop the Incident Action Plan, including objectives for action • Approve, implement and manage the Incident Action Plan • Communicate within and beyond the incident management structure • Manage and review safety of responders • Address the broader public safety considerations • Conclude and review activities.
Contractor Project Manager	<ul style="list-style-type: none"> • Confirm activities are performed in accordance with this EP, as detailed in the Woodside approved Contractor Environmental Management Plan. • Ensure personnel commencing work on the project receive a relevant environmental induction that meets the requirements specified in this EP. • Ensure personnel are competent to perform the work they have been assigned. • Ensure any environmental incidents or breaches of objectives, standards or criteria outlined in this EP are reported immediately to the Woodside Project Manager or Woodside Environmental Adviser.
Offshore support vessel -based Personnel	
Project Vessels Master	<ul style="list-style-type: none"> • Ensure the vessel management system and procedures are implemented. • Ensure personnel commencing work on the vessel receive an environmental induction that meets the relevant requirements specified in this EP. • Ensure personnel are competent to perform the work they have been assigned. • Verify SOPEP drills are conducted as per the vessel's schedule. • Ensure the vessel Emergency Response Team has been given sufficient training to implement the SOPEP. • Ensure any environmental incidents or breaches of relevant EPOs or EPSs detailed in this EP are reported immediately to the Woodside Site Representative. • Ensure corrective actions for incidents or breaches are developed, communicated to the Woodside Site Representative, and tracked to closeout in a timely manner. Ensure closeout of actions is communicated to the Woodside Site Representative.
Vessel Logistics Coordinators	<ul style="list-style-type: none"> • Ensure waste is managed on the relevant support vessels and sent to shore as per the relevant waste management plan (WMP).

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Title (role)	Environmental Responsibilities
Woodside Site Representative	<ul style="list-style-type: none"> • Support the Woodside Delivery Manager to ensure the controls detailed in this EP relevant to offshore activities are implemented on the offshore support vessel, and help collect and record evidence of implementation (other controls are implemented and evidence collected onshore). • Support the Woodside Delivery Manager to ensure the EPOs are met and the EPSs detailed in this EP are implemented on the offshore support vessel. • Support the Woodside Delivery Manager to ensure environmental incidents or breaches of outcomes or standards outlined in this EP are reported, and corrective actions for incidents and breaches are developed, tracked and closed out in a timely manner. • Ensure periodic environmental inspections and reviews are completed and corrective actions from inspections are developed, tracked and closed out in a timely manner. • Review contractors' procedures, input into Toolbox Talks and Job Safety Analyses. • Provide day-to-day environmental support for activities in consultation with the Woodside Environment Adviser.

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It is the responsibility of all Woodside employees and contractors to implement the Woodside Environment and Biodiversity Policy (Appendix A) in their areas of responsibility and that the personnel are suitably trained and competent in their respective roles.

8.4 Unexpected Finds Procedure

In the event of the discovery of what appears to be Underwater Cultural Heritage (defined as 'any trace of human existence that has a cultural, historical or archaeological character and is located under water'); the following Unexpected Finds Procedure will apply:

- All activities with the potential to impact the suspected Underwater Cultural Heritage must cease immediately. Retain all records of the potential Underwater Cultural Heritage, including any imagery, description and location.
- Person who discovers the heritage object must inform the Activity Supervisor.
- Activity Supervisor must notify Woodside's Principal Heritage Adviser.
- Woodside will specify an appropriate buffer around the potential Underwater Cultural Heritage, taking into consideration the nature and scale of the potential Underwater Cultural Heritage and the activities to be managed.
- No seabed disturbance may occur within the buffer area around the potential Underwater Cultural Heritage until approved by Woodside's Principal Heritage Adviser.
- Woodside's Principal Heritage Adviser must notify a qualified underwater archaeologist and provide all available documentation of the potential Underwater Cultural Heritage.
- If the potential Underwater Cultural Heritage appears to be Aboriginal underwater cultural heritage, Woodside's Principal Heritage Adviser must notify the appropriate Traditional Custodians to determine whether it is a heritage site and if so, how the site should be managed.
- If the potential Underwater Cultural Heritage appears to be a shipwreck or aircraft that has been wrecked for more than 75 years, or is otherwise reportable under Section 40 of the UCH Act, Woodside's Principal Heritage Advisor must notify the Minister responsible for the UCH Act, the DCCEEW underwater archaeology section through the Australasian Underwater Cultural Heritage Database, and the Western Australian Museum.
- If the suspected heritage object includes human remains, Woodside's Principal Heritage Adviser must also notify:
 - The Australian Federal Police (phone: 131 444) of the location of the remains, that the remains are likely to be historic or Aboriginal in origin, and that it may be appropriate that Traditional Custodians and a maritime archaeologist are present during any handling of the remains; and
 - The Office of the Federal Environment Minister in accordance with Section 20 of the ATSIHP Act.
- Work must not recommence in the vicinity of the potential heritage object until Woodside's Principal Heritage Adviser provides written approval. Woodside's Principal Heritage Adviser must only provide written approval once agreed management measures are implemented consistent with approvals and legislation or where the potential Underwater Cultural Heritage is confirmed to not be Underwater Cultural Heritage.

8.5 Training and Competency

8.5.1 Overview

Woodside, as part of its contracting process, assesses a proposed contractor's environmental management systems to determine the level of compliance with the standard AS/NZ ISO 14001. This assessment is performed for the Petroleum Activities Program as part of the pre-mobilisation process. The assessment determines whether there is an organisational structure that clearly defines the roles and responsibilities for key positions. The assessment also assesses whether there is an up-to-date training matrix that defines any corporate and site- or activity-specific environmental training and competency requirements.

As a minimum, environmental awareness training is required for all personnel, detailing awareness and compliance with the contractor's environmental policy and environmental management system.

8.5.2 Inductions

Inductions are provided to all relevant personnel (such as contractors and company representatives) before mobilising to or on arrival at the activity location. The induction covers the HSE requirements and environmental information specific to the activity location. Attendance records will be maintained.

The Petroleum Activities Program induction may cover information about:

- description of the activity
- ecological and socio-economic values of the activity location and Underwater Cultural Heritage
- regulations relevant to the activity
- Woodside's Environmental Management System – Health, Safety and Environment Policy
- EP importance, structure, implementation and roles and responsibilities
- main environmental aspects and hazards and potential environmental impacts and related EPOs
- oil spill preparedness and response
- monitoring and reporting on performance outcomes and standards using MC
- incident reporting.

8.5.3 Petroleum Activities Program Specific Environmental Awareness

Before the Petroleum Activities Program begins, a pre-activity meeting will be held with the project vessels with all relevant vessel leadership personnel. The pre-activity meeting provides an opportunity to reiterate specific environmental sensitivities or commitments associated with the activity. Relevant sections of the pre-activity meeting will also be communicated to the support vessel personnel. Attendance lists are recorded and retained.

During operations, regular HSE meetings will be held on the project vessels. During these meetings, recent environmental incidents are reviewed, and awareness material may be presented.

8.5.4 Management of Training Requirements

All personnel on the project vessels are required to be competent to perform their assigned positions. This may be in the form of external or 'on the job' training. The vessel Safety Training Coordinator (or equivalent) is responsible for identifying training needs, keeping records of training performed and identifying minimum training requirements.

8.6 Monitoring, Auditing, Management of Non-conformance and Review

8.6.1 Monitoring

Woodside and its contractors will perform a program of periodic monitoring during the Petroleum Activities Program, starting at mobilisation of each activity and continuing through the duration of each activity, to activity completion. This information will be collected using the tools and systems outlined below, developed based on the EPOs, controls, standards and MC in this EP. The tools and systems will collect, as a minimum, the data (evidence) referred to in the MC in Section 6 and Appendix D.

The collection of this data (against the MC) will form part of the permanent record of compliance maintained by Woodside and will form the basis for demonstrating the EPOs and EPSs are met, which will be summarised in a series of routine reporting documents.

8.6.1.1 Source-based Impacts and Risks

The tools and systems to monitor environmental performance, where relevant, will include:

- daily reports, which include leading indicator compliance
- periodic review of waste management and recycling records
- use of contractor's risk identification program that requires personnel to record and submit safety and environment risk observation cards on a routine basis (frequency varies with contractor)
- collection of evidence of compliance with the controls detailed in the EP relevant to offshore activities by the Woodside HSE Adviser (other compliance evidence is collected onshore)
- environmental discharge reports that record volumes of planned and unplanned discharges to the ocean and atmosphere
- monitoring of progress against key performance indicators (KPIs)
- internal auditing and assurance program, as described in Section 8.6.2.

Throughout this activity, Woodside will continuously identify new source-based risks and impacts through the monitoring and auditing systems and tools described above and in Sections 8.6.1 and 8.6.2.

8.6.2 Management of Knowledge

Review of knowledge relevant to the existing environment is undertaken in order to identify changes relating to the understanding of the environment or legislation that supports the risk and impact assessments for EPs (in-force and in-preparation). New knowledge checks take place both routinely primarily via quarterly and annual knowledge reviews and ad-hoc (as information is obtained), and encompasses the following topics:

- **Environmental science** – update checks conducted via desktop reviews: scientific literature, government publications and Woodside supported publications and studies relating to existing environment topics (including but not limited to species and habitats) as well as EPBC Act Matters of National Environmental Significance (Part 3) and Part 13 statutory instruments
- **Socio-economic environment and stakeholder information** – update checks conducted via desktop reviews: scientific literature, government publications and Woodside consultation; and,

- **Environmental legislation** – monitoring of emerging regulatory changes and the subsequent management of regulatory change (as outlined in the WMS Regulatory Compliance Management Procedure).

A management of knowledge tracker is maintained to record reviews and updates. Communication of relevant new knowledge is addressed at the EP Consolidation meetings and where changes in knowledge prompt a consideration of management of change, this is actioned and documented appropriately.

8.6.3 Program of Ongoing Engagement with Traditional Custodians

Woodside will undertake an annual review of the Program of Ongoing Engagement with Traditional Custodians (Appendix I) to determine its effectiveness and adapt the program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.

8.6.4 Auditing

Environmental performance auditing will be performed to:

- identify potential new or changes to existing environmental impacts and risk, and methods for reducing those to ALARP
- confirm mitigation measures detailed in this EP are effectively reducing environmental impacts and risk, that mitigation measures proposed are practicable and provide appropriate information to verify compliance
- confirm compliance with the EPOs, controls and EPSs detailed in this EP.

8.6.5 Wellhead Removal Activities

Internal audits will be conducted to review the environmental performance of the Petroleum Activities Program, specifically:

- Pre-mobilisation inspection and audit will be conducted by a relevant person (before commencing). The scope of the audits are risk-based and specific to the relevant activity, but will generally focus on aspects relating to ensuring appropriate understanding of environmental commitments and the operational readiness of the activity scope, including appropriate environmental controls in place. Offshore support vessels associated with the Petroleum Activities Program will be audited by Woodside. General support vessels will be assessed on a risk-based approach but will be inspected and audited where required via the primary contractor's process.
- At least one operational compliance audit relevant to applicable EP commitments will be conducted by a Woodside Environment Adviser. The audit scope will be risk based and specific to the activity, and may be conducted offshore or office -based, subject to the duration of the activity and logistics of performing the audit offshore for short duration scopes (such as wellhead removal).
- Contractor-specific HSE assurance may also be conducted on the associated general support vessels. The audits will consider the implementation of HSE management, risk management, as well as pre-mobilisation and offshore readiness.
- Vessel-based HSE inspections will be conducted a minimum of fortnightly by vessel HSE personnel. Each inspection will focus on a specific risk area relevant to the project activity and will be documented by the contractor (for example, bunkering controls, chemical and discharge management).

The internal audits and reviews, combined with the ongoing monitoring described in Section 8.6.1 and collection of evidence for MC, are used to assess EPOs and EPSs.

As part of Woodside's Environmental Management System and assurances processes, activities may also be periodically selected for environmental audits as per Woodside's internal auditing process. Audit, inspection and review findings relevant to continuous improvement of environmental performance are tracked through the Environmental Commitments and Actions Register.

This Environmental Commitments and Actions Register is used to track subsea support vessel and subsea activity compliance with EP commitments, including any findings and corrective actions.

Non-conformances identified will be reported and tracked in accordance with Sections 8.10.3 and 8.10.4.

8.6.5.1 Marine Assurance

All vessels are subject to the Marine Offshore Assurance process and review of the Offshore Vessel Inspection Database (OVID). All required audits and inspections will assess compliance with the laws of the international shipping industry, which includes safety and environmental management requirements, and maritime legislation including International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 (MARPOL) and other International Maritime Organization (IMO) standards.

Woodside's marine assurance is managed by the Marine Assurance Team of the Logistics Function in accordance with Woodside's Marine Offshore Vessel Assurance Procedure. The Woodside process is based on industry standards and consideration of guidelines and recommendations from recognised industry organisations, such as Oil Companies International Marine Forum and International Maritime Contractors Association.

The process is mandatory for all vessels (other than tankers and FPSOs) hired for Woodside operations, including for short term hires (in other words, less than three months in duration). It defines applicable marine offshore assurance activities, ensuring all vessel operators operate seaworthy vessels that meet the requirements for a defined scope of work and are managed with a robust safety management system.

The process is multi-faceted and encompasses the marine assurance activities of:

- offshore vessel management system assessment (OVMSA)
- DP system verification
- vessel inspections
- Offshore Vehicle Inspection Database or condition and suitability assessment
- project support for tender review, evaluation and pre- and post-contract award.

Vessel inspections are used to verify actual levels of compliance with the company's Safety Management System, the overall condition of the vessel and the status of the planned maintenance system onboard. Woodside's Marine Assurance Specialist will conduct a risk assessment on the vessel to determine the level of assurance applied and the type of vessel inspection required.

Methods of vessel inspection may include, and are not limited to:

- Woodside Marine Vessel Inspection
- Oil Companies International Marine Forum Offshore Vehicle Inspection Database Inspection
- International Marine Contractors Association Common Marine Inspection Document
- Marine Warranty Survey.

Upon completion of the marine assurance process, to confirm that identified concerns are addressed appropriately and conditions imposed are managed, the Woodside Marine Assurance Team will issue the vessel a statement of approval. Should a vessel not meet the requirements of the Woodside Marine Offshore Vessel Assurance Process and be rejected, there does exist an opportunity to further scrutinise the proposed vessel.

Where a vessel inspection or OVMSA verification review is not available and all reasonable efforts based on time and resource availability have been made to complete this (such as short-term vessel hire), the Marine Assurance Specialist Offshore may approve the use of an alternate means of inspection, known as a risk assessment.

8.6.5.2 Risk Assessment

Woodside conducts a risk assessment of vessels where either an OVMSA Verification Review or vessel inspection cannot be completed. This is not a regular occurrence and is typically used when the requirements of the assurance process are unable to be met or the processes detailed are not applicable to a proposed vessel(s). The Marine Vessel Risk Assessment will be conducted by the Marine Assurance Specialist, where the vessel meets the short-term hire prerequisites.

The risk assessment is a semi-quantitative method of determining what further assurance process activity, if any, is required to assure a vessel for a particular task or role. The process compares the level of management control a vessel is subject to against the risk factors associated with the activity or role.

Several factors are assessed as part of a vessel risk assessment, including:

- management control factors:
 - company audit score (as in, management system)
 - vessel HSE incidents
 - vessel Port State Control deficiencies
 - instances of Port State Control vessel detainment
 - years since previous satisfactory vessel inspection
 - age of vessel
 - contractors' prior experience operating for Woodside.
- activity risk factors:
 - people health and safety risks (a function of the nature of the work and the area of operation)
 - environmental risks (a function of environmental sensitivity, activity type and magnitude of potential environment damage, such as largest credible oil spill scenario)
 - value risk (likely time and cost consequence to Woodside if the vessel becomes unusable)
 - reputation risk
 - exposure (as in, exposure to risk based on duration of project)
 - industrial relations risk.

The acceptability of the vessel or requirement for further vessel inspections or audits is based on the ratio of vessel score to activity risk. If the vessel management control is not deemed to appropriately manage activity risk, a satisfactory company audit or vessel inspection may be required before awarding work.

The risk assessment is valid for the period a vessel is on hire and for the defined scope of work.

8.6.6 Management of Non-conformance

Woodside classifies non-conformances with EPOs and EPSs in this EP as environmental incidents. Woodside employees and contractors are required to report all environmental incidents, and these are managed as per Woodside's HSE Event Reporting and Investigation Procedure which includes learning requirements.

An internal computerised database called First Priority is used to record and report these incidents. Details of the event, immediate action taken to control the situation, investigation outcomes and corrective actions to prevent reoccurrence are all recorded. Corrective actions are monitored using First Priority and closed out in a timely manner.

Woodside uses a consequence matrix for classification of environmental incidents, with the significant categories being A, B and C (as detailed in Section 2.7). Detailed investigations are completed for all categories A, B, C and high potential environmental incidents.

8.6.7 Review

8.6.7.1 Management Review

Within the HSE function, senior management regularly monitors and reviews environmental performance and the effectiveness of managing environmental risks and performance. Within each Function and Business Unit Leadership Team, managers regularly review environmental performance, including through HSE Review meetings.

Woodside's Environment Team will perform six-monthly reviews of the effectiveness of the implementation strategy and associated tools. This will involve reviewing the:

- Well Delivery environment key performance indicators (leading and lagging)
- tools and systems to monitor environmental performance (detailed in Section 8.6.1)
- lessons learned about implementation tools and throughout each campaign.

Reviews of oil spill arrangements and testing are performed in accordance with Section 8.11.

8.6.7.2 Learning and Knowledge Sharing

Learning and knowledge sharing occurs via a number of different methods, including:

- event investigations
- event bulletins
- review of environmental incidents as relevant
- ongoing communication with vessel contractors
- formal and informal industry benchmarking
- cross-asset learnings
- engineering and technical authorities discipline communications and sharing.

8.6.7.3 Review of Impacts, Risks and Controls Across the Life of the Environment Plan

Where event activities described in this EP do not occur continuously or sequentially, before recommencing activities after a cessation period greater than 12 months, impacts, risks and controls will be reviewed.

The process will identify or review impacts and risks associated with the newly commencing activity, and will identify or review controls to ensure impacts and risks remain or are reduced to ALARP and

acceptable levels. Information learned from previous activities conducted under this EP will be considered. Controls which have previously been excluded on the basis of proportionality will be reconsidered. Any required changes will be managed by the Management of Change process outlined below (Section 8.7).

8.7 Management of Change and Revision

8.7.1 Environment Plan Management of Change

Changes are managed in accordance with Woodside's Environmental Approval Requirements Australia Commonwealth Guideline. Management of changes relevant to this EP, concerning the scope of the activity description (Section 4) – including review of advances in technology at stages where new equipment may be selected such as vessel contracting, changes in understanding of the environment, DCCEEW EPBC Act listed threatened and migratory species status, Part 13 statutory instruments (recovery plans, threat abatement plans, conservation advice, wildlife conservation plans) and current requirements for AMPs (Section 5.5); and potential new advice from external stakeholders (Section 5) – will be managed in accordance with Regulation 17 of the Environment Regulations.

Risk will be assessed in accordance with the environmental risk management methodology (Section 2.6) to determine the significance of any potential new environmental impacts or risks not provided for in this EP. Risk assessment outcomes are reviewed in compliance with Regulation 17 of the Environment Regulations.

Minor changes, where a review of the activity and the environmental risks and impacts of the activity do not trigger a requirement for a formal revision under Regulation 17 of the Environment Regulations, will be considered a 'minor revision'. Minor administrative changes to this EP, where an assessment of the environmental risks and impacts is not required (such as document references, phone numbers), will also be considered a 'minor revision'. Minor revisions as defined above will be made to this EP using Woodside's document control process. Minor revisions will be tracked in a Management of Change Register to ensure visibility of cumulative risk changes, as well as enable internal EP updates and reissuing as required. This document will be made available to NOPSEMA during regulator environment inspections.

8.7.2 Oil Pollution Emergency Plan Management of Change and Revision

Relevant documents from the OPEP will be reviewed in circumstances of:

- implementation of improved preparedness measures
- a change in the availability of equipment stockpiles
- a change in the availability of personnel that reduces or improves preparedness and the capacity to respond
- the introduction of a new or improved technology that may be considered in a response for this activity
- to incorporate, where relevant, lessons learned from exercises or events
- if national or state response frameworks and Woodside's integration with these frameworks changes.

Where changes are required to the OPEP based on the outcomes of the reviews described above, they will be assessed against Regulation 17 to determine if resubmission of the EP, including the OPEP, is required (see Section 8.7.1). Changes with potential to influence minor or technical changes to the OPEP are tracked in management of change records, project records and incorporated during internal updates of the OPEP or the five-yearly revision.

8.8 Record Keeping

Compliance records (outlined in MC in Section 6) will be maintained.

Record keeping will be in accordance with Regulation 14(7) that addresses maintaining records of emissions and discharges.

8.9 Ongoing Consultation

Although consultation for the purpose of Regulation 11A is complete, in accordance with Regulation 14 (9) of the Environment Regulations, the implementation strategy must provide for appropriate consultation with relevant authorities of the Commonwealth, a State or Territory and other relevant interested persons or organisations.

Woodside proposes to undertake the engagements with relevant interested persons throughout the life of the EP. Recent new information identified during ongoing consultation will be assessed as appropriate using the EP Management of Knowledge system (refer to Section 8.6.2) and Management of Change Process (refer to Section 8.7).

Woodside hosts community forums at which members are provided updates on Woodside activities on a regular basis (for example community reference group meetings). Representatives who are present at those meetings are from community and industry and include Woodside, State Government (for instance relevant Regional Development Commissions), Local Government, Indigenous Groups, Industry representative bodies, Community and industry organisations.

Relevant persons and those who are simply interested in the activities, can otherwise remain up to date on this activity through subscribing to the Woodside website, or by reading the publicly available version of the EP on NOPSEMA's website, where available.

Should consultation feedback be received following EP acceptance that identifies relevant new information or a measure or control that requires implementation or update to meet the intended outcome of consultation (see Section 6.7), Woodside will apply its EP Management of Knowledge process (refer to Section 8.6.2) and Management of Change process (refer to Section 8.7), as appropriate.

Woodside has developed a Program of Ongoing Engagement with Traditional Custodians (Appendix L), which is compliant with Corporate Woodside Policies Strategies and procedures and directly informed by feedback from Traditional Custodians.

It provides a mechanism for ongoing dialogue so that Traditional Custodians can, on an ongoing basis, provide Woodside with feedback relating to the activity and in relation to caring for and managing country, including Sea Country. The Program will be tailored to each Traditional Custodian group and may include, as agreed with relevant Traditional Custodians:

- social investment to support Indigenous ranger programs
- support for Indigenous oil spill response capabilities
- support for recording Sea Country values
- support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the broader oil and gas industry on activities
- development of ongoing relationships with Traditional Custodian groups
- any other initiatives proposed for the purpose of protecting Country including cultural values.

At the time of EP submission, a number of specific activities as part of ongoing consultation regarding the activity are planned with Traditional Custodians. These are described in Appendix I. Where Traditional Custodian relevant persons have requested information or further engagement considered as ongoing consultation, but have not requested a framework agreement, these requests

have been captured in Table 8-2. However, a framework agreement may still be initiated by these groups at any time.

Table 8-2 Ongoing consultation engagements

Report/Information	Recipient	Purpose	Frequency	Content
Notification (email) Updates (email)	AHO	As requested by AMSA during consultation.	No less than 4 weeks prior to commencement. As required.	PS 1.1 (Section 7.7.1) Date of activity start. Changes to planned activities.
Notification (email) Updates (email)	AMSA	As requested by AMSA during consultation.	At least 24-48 hours before operations commence. Provide updates to the AHO and JRCC should there be changes to the activity.	PS 1.3 (Section 7.7.1) Date of activity start. Changes to planned activities.
Notification (email)	DoD	As requested by DoD during consultation.	Five weeks prior to commencement of activities. Airservices Australia if Notice to Airmen notification is required for activities in Restricted Airspace.	PS 1.6 (Section 7.7.1) Date of activity start and confirmation of restricted airspace status.
Notification (email)	DEMIRS	As requested by DEMIRS during consultation.	At least 10 days prior to commencement and following completion of activities.	PS 1.4 (Section 7.7.1) Date of start of activity and end.
Notification (email)	AFMA, DAFF – Fisheries, CFA, DPIRD, WAFIC Recfishwest, Searcher Seismic and Shire of Ashburton	As requested during consultation and/or organisation expectation.	At least 10 days prior to commencement and following completion of activities.	PS 1.4 (Section 7.7.1) Date of activity start and end.
Notification (email)	Telstra	As requested during consultation and/or organisation expectation.	No less than 4 weeks prior to commencement of activities at North Rankin-3.	PS 1.4 (Section 7.7.1) Date of activity start and end. Planned activities.
Notification (email)	All relevant persons for the proposed activity.	Notification of significant change.	As appropriate.	Notification of significant change Any relevant new information will be assessed using the EP Knowledge Management System (refer to Section 8.6.2) and Management of

				Change Process (refer to Section 8.7).
Notification (email)	Australasian Underwater Cultural Heritage Database Any other stakeholders as required in the Unexpected Finds Procedure (Section 7.6).	Report any unexpected finds of potential Underwater Cultural Heritage.	If triggered by Unexpected Finds Procedure (Section 8.4).	Refer to Unexpected Finds Procedure (Section 8.4).
Program of Ongoing Engagement with Traditional Custodians (Appendix I)	Relevant cultural authorities (Appendix I).	Ongoing Engagement.	Ongoing. Responses to any feedback received by Traditional Custodian groups will be provided by Woodside within four weeks of receipt. Progress on the Program will be reported in line with annual sustainability reporting via the Woodside website.	Any relevant new information on cultural values will be assessed using the EP Management of Knowledge (Section 8.6.2) and Management of Change Process (refer to Section 8.7).

8.10 Reporting

To meet the EPOs and EPSs outlined in this EP, Woodside reports at a number of levels, as outlined in the next sections.

8.10.1 Routine Reporting (Internal)

8.10.1.1 Regular Health, Safety and Environment Meetings

The project support vessel will hold regular HSE meetings which cover all crews. During these meetings, environmental incidents will be reviewed, and awareness material presented. All personnel are required to attend the HSE meetings and attendances sheets are retained by the project vessel contractor. Daily meetings held onboard the project support vessel will also serve to reinforce environmental awareness during the petroleum activity.

Dedicated HSE meetings will also be held with the offshore and Perth based management to address targeted HSE incidents and initiatives.

8.10.1.2 Performance Reporting

Monthly and quarterly performance reports are developed and reviewed by the Function and Business Unit Leadership Teams. These reports cover a number of subject matters, including:

- HSE incidents (including high potential incidents and those related to this EP) and recent activities
- corporate KPI targets, which include environmental metrics
- outstanding actions as a result of audits or incident investigations
- technical high and low lights.

8.10.2 Routine Reporting (External)

8.10.2.1 Start and End Notifications of the Petroleum Activities Program

In accordance with Regulation 29, Woodside will notify NOPSEMA of the commencement of the Petroleum Activities Program at least ten days before the activity commences and will notify NOPSEMA within ten days of completing the activity.

8.10.2.2 Environmental Performance Review and Reporting

In accordance with applicable environmental legislation for the activity, Woodside is required to report information about environmental performance to the appropriate regulator. Regulatory reporting requirements are summarised in Table 8-3.

Table 8-3: Routine external reporting requirements

Report	Recipient	Frequency	Content
Monthly Recordable Incident Reports (Appendix E)	NOPSEMA	Monthly, by the 15th of each month	Details of recordable incidents that have occurred during the Petroleum Activities Program for previous month (if applicable)
Environmental Performance Report	NOPSEMA	Annually, with the first report submitted within 12 months of the commencement of the Petroleum Activities Program covered by this EP (as per the requirements of Regulation 14(2))	Compliance with EPOs, controls and EPSs outlined in this EP, in accordance with the Environment Regulations

8.10.2.3 End of the Environmental Plan

The EP will end when Woodside notifies NOPSEMA that the Petroleum Activities Program has ended and all of the obligations identified in this EP have been completed, and NOPSEMA has accepted the notification, in accordance with Regulation 25A of the Environment Regulations.

8.10.3 Incident Reporting (Internal)

The process for reporting environmental incidents is described in Sections 8.10.3 and 8.10.4 of this EP. It is the responsibility of the Woodside Project Manager to ensure reporting of environmental incidents meets Woodside and regulatory reporting requirements as detailed in the Woodside HSE Event Reporting and Investigation Procedure and this section of this EP.

8.10.4 Incident Reporting (External) – Reportable and Recordable

8.10.4.1 Reportable Incidents

Definition

A reportable incident is defined under Regulation 4 of the Environment Regulations as:

- ‘an incident relating to the activity that has caused, or has the potential to cause, moderate to significant environmental damage’.

A reportable incident for the Petroleum Activities Program is:

- an incident that has caused environmental damage with a Consequence Level of Moderate (C) or above (as defined under Woodside’s Risk Table (refer to Figure 2-6))
- an incident that has the potential to cause environmental damage with a Consequence Level of Moderate (C) or above (as defined under Woodside’s Risk Table (refer to Figure 2-6)).

The environmental risk assessment (Section 6) for the Petroleum Activities Program identifies those risks with a potential consequence level of C+ for environment. The incidents that have the potential to cause this level of impact include hydrocarbon loss of containment events to the marine environment resulting from a vessel fuel tank rupture.

Any such incidents represent potential events which would be reportable incidents. Incident reporting is performed with consideration of NOPSEMA (2014) guidance, stating 'if in doubt, notify NOPSEMA', and assessed on a case-by-case basis to determine if they trigger a reportable incident as defined in this EP and by the Environment Regulations.

Notification

NOPSEMA will be notified of all reportable incidents, according to the requirements of Regulations 26, 26A and 26AA of the Environment Regulations. Woodside will:

- report all reportable incidents to the regulator (orally) as soon as practicable (ASAP), but within two hours of the incident or of its detection by Woodside
- provide a written record of the reported incident to NOPSEMA, the National Offshore Petroleum Titles Administrator and the department of the responsible State Minister (DEMIRS) ASAP after orally reporting the incident
- complete a written report for all reportable incidents using a format consistent with the NOPSEMA Form FM0831 – Reportable Environmental Incident (Appendix E) which must be submitted to NOPSEMA ASAP, but within three days of the incident or of its detection by Woodside
- provide a copy of the written report to the National Offshore Petroleum Titles Administrator and DEMIRS, within seven days of the written report being provided to NOPSEMA.

AMSA will be notified of oil spill incidents ASAP after their occurrence, and DCCEEW notified if MNES are to be affected by the oil spill incident.

8.10.4.2 Recordable Incidents

Definition

A recordable incident as defined under Regulation 4 of the Environment Regulations is an incident arising from the activity that 'breaches an environmental performance outcome or environmental performance standard, in the EP that applies to the activity, that is not a reportable incident'.

Notification

NOPSEMA will be notified of all recordable incidents, according to the requirements of Regulation 26B(4), no later than 15 days after the end of the calendar month using the NOPSEMA Form – Recordable Environmental Incident Monthly Summary Report (Appendix E), detailing:

- all recordable incidents that occurred during the calendar month
- all material facts and circumstances concerning the recordable incidents that the operator knows or is able, by reasonable search or enquiry, to find out
- any action taken to avoid or mitigate any adverse environment impacts of the recordable incidents
- the corrective action that has been taken, or is proposed to be taken, to prevent similar recordable incidents
- the action that has been taken, or is proposed to be taken, to prevent a similar incident occurring in the future.

8.10.4.3 Other External Incident Reporting Requirements

In addition to the notification and reporting of environmental incidents defined under the Environment Regulations and Woodside requirements, Table 8-4 describes the incident reporting requirements that also apply in the Operational Areas.

Table 8-4: External incident reporting requirements

Event	Responsibility	Notifiable Party	Notification requirements	Contact	Contact detail
Any marine incidents during Petroleum Activities Program	Vessel Master	AMSA	Incident Alert Form 18 as soon as reasonably practicable Within 72 hours after becoming aware of the incident, submit Incident Report Form 19	AMSA	reports@amsa.gov.au
Oil pollution incidents in Commonwealth waters	Vessel Master	AMSA Rescue Coordination Centre (RCC)	As per Article 8 and Protocol I of MARPOL within two hours via the national emergency 24-hour notification contacts and a written report within 24 hours of the request by AMSA	AMSA RCC Australia	If the ship is at sea, reports are to be made to: Free call: 1800 641 792 Phone: 08 9430 2100 (Fremantle)
Oil pollution incidents in Commonwealth waters	Vessel Master	AMSA	Without delay as per Protection of the Sea Act, part II, section 11(1), AMSA RCC notified verbally via the national emergency 24-hour notification contact of the hydrocarbon spill; follow up with a written Pollution Report ASAP after verbal notification	RCC Australia	Phone: 1800 641 792 OR +61 2 6230 6811 AFTN: YSARYCYX
Any oil pollution incident which has the potential to enter a National Park or requires oil spill response activities to be conducted within a National Park	Vessel Master	DCCEEW	Reported verbally, ASAP	DNP	Phone: 02 6274 2220
Activity that causes unintentional death of or injury to fauna species listed as Threatened or Migratory under the EPBC Act	Vessel Master	DCCEEW	Within seven days of becoming aware	Secretary of the DCCEEW	Phone: 1800 803 772 Email: protected.species@environment.gov.au

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Event	Responsibility	Notifiable Party	Notification requirements	Contact	Contact detail
Within 2 hours of becoming aware of a marine pollution incident (MOP) that occurs in or may impact state waters	CICC DM or delegate	Department of Transport (DoT)	Verbally notify DoT's Maritime Environmental Emergency Response Unit (DoT MEER) Duty Officer that a spill has occurred and, if required, request use of equipment stored in Karratha. Follow up with a written pollution reports as soon as practicable following verbal notification. Additionally, DoT to be notified if spill is likely to extend into WA State waters. Request DoT to provide Liaison to Woodside IMT.	DoT MEER Duty Officer	Phone: 08 9480 9924

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The pollution activities that should also be reported to AMSA via RCC Australia by the Vessel Master are:

- any loss of plastic material
- garbage disposed of in the sea within 12 nm of land (garbage includes food, paper, bottles and such)
- any loss of hazardous materials.

For oil spill incidents, other agencies and organisations will be notified as appropriate to the nature and scale of the incident as per procedures and contact lists in the [Oil Pollution Emergency Arrangements \(Australia\)](#) and the NWS and Julimar Exploration Wellhead Decommissioning Oil Pollution First Strike Plan (Appendix H).

External incident reporting requirements under the OPGGS (Safety) Regulations, including under Sub-regulation 2.42, notices and reports of dangerous occurrences will be reported to NOPSEMA under the approved activity safety cases.

8.11 Emergency Preparedness and Response

8.11.1 Overview

Under Regulation 14(8), the implementation strategy must contain an Oil Pollution Emergency Plan and provide for updating the OPEP. Regulation 14(8AA) outlines the requirements for the OPEP, which must include adequate arrangements for responding to and monitoring oil pollution.

How this EP and supporting documents address the various requirements of Environment Regulations relating to oil pollution response arrangements is summarised in Table 8-5.

Table 8-5: Oil pollution and preparedness and response overview

Content	Environment Regulations Reference	Document/Section Reference
Details (oil pollution response) control measures that will be used to reduce the impacts and risks of the activity to ALARP and an acceptable level	Regulation 13(5), (6), 14(3)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix D).
Describes the OPEP	Regulation 14(8)	EP: Woodside's OPEP has the following components: <ul style="list-style-type: none"> • Woodside Oil Pollution Emergency Arrangements (Australia) • Oil Pollution First Strike Plan (Appendix H) • Oil Spill Preparedness and Response Mitigation Assessment (Appendix D). In accordance with Regulation 31 of the Environmental Regulations, the Woodside Oil Pollution Emergency Arrangements (Australia) were provided with the Scarborough Drilling and Completions EP, accepted by NOPSEMA on 1 December 2023.
Details the arrangements for responding to and monitoring oil pollution (to inform response activities), including control measures	Regulation 14(8AA)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix D). Oil Pollution First Strike Plan (Appendix H).
Details the arrangements for updating and testing the oil pollution response arrangements	Regulation 14(8), (8A), (8B), (8C)	EP: Section 8.11.7. Oil Spill Preparedness and Response Mitigation Assessment (Appendix D).

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Content	Environment Regulations Reference	Document/Section Reference
Details provisions for monitoring impacts to the environment from oil pollution and response activities	Regulation 14(8D)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix D).
Demonstrates that the oil pollution response arrangements are consistent with the national system for oil pollution preparedness and control	Regulation 14(8E)	Oil Pollution Emergency Arrangements (Australia) .

8.11.2 Emergency Response Training

Regulation 14(5) requires that the implementation strategy includes measures to ensure employees and contractors have the appropriate competencies and training (Table 8-6). Woodside has conducted a risk-based training needs analysis on positions required for effective oil spill response. Following the mapping of training to Woodside identified competencies, training was then mapped to positions based on their required competencies.

Table 8-6: Minimum levels of competency for key Incident Management Team positions

Position	Minimum Competency
<i>Corporate Incident Management Team Incident Commander (CIMT IC)</i>	<ul style="list-style-type: none"> Incident and Crisis Leadership Development Program (ICLDP) or CIMT Fundamentals Course (internal course). IMO2 or equivalent spill response specialist level with an oil spill response organisation (OSRO) Participation in L2 oil spill skills maintenance exercise (annually) ICS 100/200
<i>Operations, Planning, Logistics and Finance Sections, and other rostered members of the CIMT</i>	<ul style="list-style-type: none"> OSR Theory (e.g., Oil Spill Response Skills Enhancement Course (OSREC) or IMO 1/2/3) CIMT Fundamentals Course (internal course). Participation in L2 oil spill skills maintenance exercise (annually) ICS 100/200
<i>Environment Unit Leader</i>	<ul style="list-style-type: none"> CIMT Fundamentals. IMO2 or equivalent spill response Specialist level with an OSRO Participation in L2 oil spill skills maintenance exercise (annually) ICS 100/200
Note on competency/equivalency	
<p>In 2018, Woodside reviewed incident and crisis systems, processes and tools to assess whether these were fit-for-purpose and has rolled out a change to the Incident and Crisis Management training and the Oil Spill Response training requirements for both CIMT and field-based roles.</p> <p>The revised CIMT Fundamentals Training Program and ICLDP align with the performance requirements of the PMAOMIR320 – <i>Manage Incident Response Information</i> and PMAOM0R418 – <i>Coordinate Incident Response</i>.</p> <p>Regarding training-specific equivalency:</p> <ul style="list-style-type: none"> ICLDP is mapped to PMAOM0R418 (which is equivalent to IMO3 when combined with Woodside’s OSREC course) and ensures broader incident management principles aligned with Australasian Inter-service Incident Management System. The revised CIMT Fundamentals Course is mapped to PMAOMIR320 (which is equivalent to IMO2). The blended learning program offers modules aligned to IMO3, IMO2, IMO1 and Australian Marine Oil Spill Centre Core Group Training Oil Spill Response Organisation Specialist level training. OSREC involves the completion of two online AMSA Modules (Introduction to National Plan and incident management, and Introduction to oil spills) as well as elements of IMO1 and IMO2 tailored to Woodside-specific oil spill response capabilities. 	

- Woodside Learning Services is responsible for collating and maintaining personnel training records. The Hydrocarbon Spill Preparedness (HSP) Dashboard reflects the competencies required for each oil spill role (Incident Management Team/operational).

8.11.3 Emergency Response Preparation

The Corporate Incident Coordination Centre, based in Woodside's head office, is the onshore coordination point for an offshore emergency. The CICC is staffed by an appropriately skilled team available on call 24 hours a day. The purpose of the team is to coordinate rescues, minimise damage to the environment and facilities, and to liaise with external agencies. A description of Woodside's Incident Command Structure and arrangements is further detailed in the [Woodside Oil Pollution Emergency Arrangements \(Australia\)](#), as are roles and responsibilities for facility emergency response.

Woodside will have an Emergency Response Plan (ERP) in place relevant to the Petroleum Activities Program. The ERP provides procedural guidance specific to the asset and location of operations to control, coordinate and respond to an emergency or incident. The ERP will contain instructions for vessel emergency, medical emergency, search and rescue, reportable incidents, incident notification, contact information and activation of the contractor's emergency centre and Woodside Communication Centre.

In an emergency of any type, the Vessel Master will assume overall onsite command and act as the Incident Controller (IC). All persons aboard the vessel will be required to act under the IC's directions. The vessel will maintain communications with the onshore Project Manager and other emergency services. Emergency response support can be provided by the contractor's emergency centre or Woodside Communication Centre if requested by the IC.

The project vessels will have on-board equipment for responding to emergencies, including medical, firefighting and hydrocarbon spill response equipment.

8.11.4 Oil and Other Hazardous Materials Spill

A significant hydrocarbon spill during the proposed Petroleum Activities Program is unlikely, but should such an event occur, it has the potential to result in a serious safety or environmental incident and cause asset and reputational damage if not managed properly. The [Woodside Oil Pollution Emergency Arrangements \(Australia\)](#) document, supported by the Oil Pollution First Strike Plan (Appendix H), which provides tactical response guidance to the activity or area. Spill response for this Petroleum Activities Program is described further in Appendix D.

The Hydrocarbon Spill Preparedness Manager is responsible for managing Woodside's hydrocarbon spill response equipment, and for maintaining hydrocarbon spill preparedness and response documentation. In the event of a major spill, Woodside will request that AMSA (administrator of the National Plan) supports Woodside through advice and access to equipment, people and liaison. The interface and responsibilities, as defined under the National Plan, are described in the [Woodside Oil Pollution Emergency Arrangements \(Australia\)](#) document. AMSA and Woodside have a Memorandum of Understanding in place to support Woodside in the event of an oil spill.

The Oil Pollution First Strike Plan provides immediate actions required to commence a response (Appendix H).

The project vessel(s) will have a SOPEP in accordance with the requirements of MARPOL 73/78 Annex I. These plans outline responsibilities, specify procedures and identify resources available in a hydrocarbon or chemical spill from vessel activities. The Oil Pollution First Strike Plan is intended to work in conjunction with the SOPEPs and provides immediate actions required to commence a response if hydrocarbons are released to the marine environment.

Woodside has established EPOs, EPSs and MC to be used for oil spill response during the Petroleum Activities Program, as detailed in Appendix D.

8.11.5 Emergency and Spill Response

Woodside categorises incidents and emergencies in relation to response requirements as follows:

8.11.5.1 Level 1

Level 1 incidents are those that can be resolved using existing resources, equipment and personnel. A Level 1 incident is contained, controlled and resolved by site- or regionally-based teams using existing resources and functional support services.

8.11.5.2 Level 2

Level 2 incidents are characterised by a response that requires external operational support to manage the incident. It is triggered if the capabilities of the tactical level response are exceeded. This support is provided to the activity by activating all or part of the responsible CICC.

8.11.5.3 Level 3

A Level 3 incident or crisis is identified as a critical event that seriously threatens the organisation's people, the environment, company assets, reputation, or livelihood. At Woodside, the Crisis Management Team manages the strategic impacts in order to respond to and recover from the threat to the company (material impacts, litigation, legal and commercial, reputation and such). The CICC may also be activated as required to manage the operational incident response.

8.11.6 Emergency and Spill Response Drills and Exercises

Woodside's capability to respond to incidents will be tested periodically, in accordance with the Emergency and Crisis Management Procedure. The scope, frequency and objective of these tests is described in Table 8-7. Emergency response testing is aligned to existing or developing risks associated with Woodside's operations and activities. Corporate hazards and risks outlined in the corporate risk register, respective Safety Cases or project Risk Registers, are reference points for developing and scheduling emergency and crisis management exercises. External participants may be invited to attend exercises (for example, government agencies, specialist service providers, oil spill response organisations, or industry members with which Woodside has mutual aid arrangements).

The overall objective of exercises is to test procedures, skills and the teamwork of the Emergency Response and Command Teams in their ability to respond to major accident and major environment events. After each exercise, the team holds a debriefing session, during which the exercise is reviewed. Any lessons learned or areas for improvement are identified and incorporated into revised procedures, where appropriate.

Table 8-7: Testing of response capability

Response Category	Scope	Response Testing Frequency	Response Testing Objective
Level 1 Response	Exercises are project- and activity-specific	At least one Level 1 OPEP drill must be conducted during an activity. For campaigns with an operational duration of greater than one month, this will occur within the first two weeks of commencing the activity and then at least every six-month hire period thereafter.	<ul style="list-style-type: none"> Comprehensive exercises test elements of the Oil Pollution First Strike Plan (Appendix H). Emergency drills are scheduled to test other aspects of the Emergency Response Plan.
Level 2 Response	Exercises are vessel-specific	Level 2 Emergency Management exercises are relevant to activities with an operational duration of one month or greater. At least one Emergency Management exercise per campaign must be conducted within the first month of commencing the activity and then at every six-month hire period thereafter, where applicable based on duration.	<ul style="list-style-type: none"> Test both the facility Incident Management Team response and that of the CICC following handover of incident control.
Level 3 Response	Exercises are relevant to all Woodside assets	The number of Crisis Management Team exercises conducted each year is determined by the Chief Executive Officer, in consultation with the Vice President of Security and Emergency Management.	<ul style="list-style-type: none"> Test Woodside's ability to respond to and manage a crisis-level incident.

8.11.7 Testing of Hydrocarbon Spill Testing of Arrangements

There are a number of arrangements which, in the event of a spill, will underpin Woodside's ability to implement a response across its petroleum activities. To ensure these arrangements are adequately tested, the Capability Development Team within Security and Emergency Management ensures tests are conducted in alignment with the Hydrocarbon Spill Testing of Arrangements Schedule.

Woodside's arrangements for spill response are common across its Australian operating assets and activities to ensure the controls are consistent. The overall objective of testing these arrangements is to ensure Woodside maintains an ability to respond to a hydrocarbon spill, specifically to:

- ensure relevant responders, contractors and key personnel understand and practice their assigned roles and responsibilities
- test response arrangements and actions to validate response plans
- ensure lessons learned are incorporated into Woodside's processes and procedures and improvements are made where required.

If new response arrangements are introduced, or existing arrangements significantly amended, additional testing is undertaken accordingly. Additional activities or activity locations are not anticipated to occur; however, if they do, testing of relevant response arrangements will be undertaken as soon as practicable.

In addition to the testing of response capability described in Table 8-7, up to eight formal exercises are planned annually, across Woodside, to specifically test arrangements for responding to a hydrocarbon spill to the marine environment.

8.11.7.1 Testing of Arrangements Schedule

Woodside's Testing of Arrangements Schedule (Figure 8-1) aligns with international good practice for spill preparedness and response management; the testing is compatible with the International Petroleum Industry Environmental Conservation Association Good Practice Guide and the

Australian Institute for Disaster Resilience Australian Emergency Management Arrangements Handbook. If a spill occurs, enacting these arrangements will underpin Woodside's ability to implement a response across its petroleum activities.

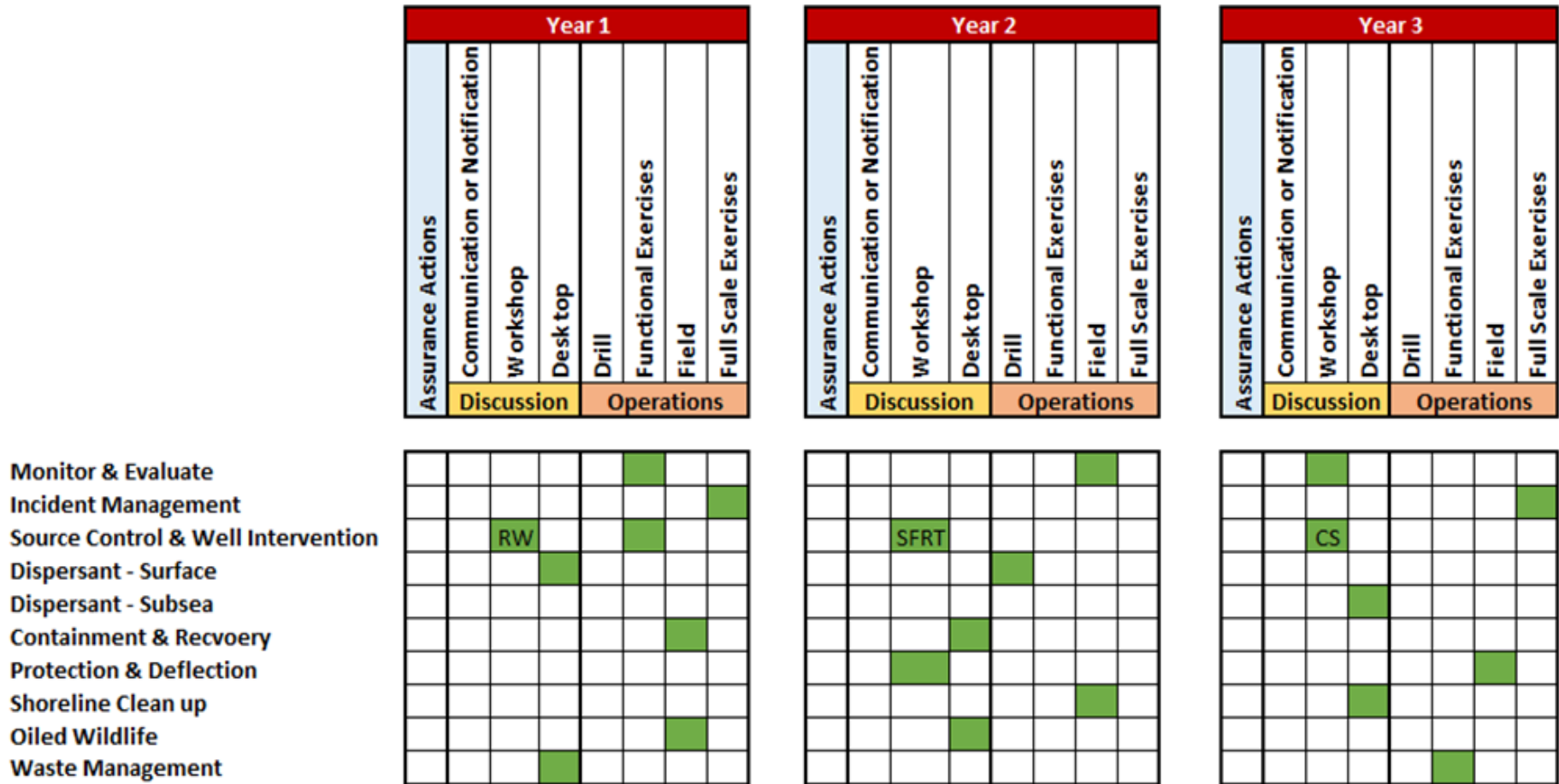


Figure 8-1: Indicative three-yearly testing of arrangements schedule

(Snapshot of a selection of oil spill response arrangements tested annually; Note: schedule is subject to change, additional detail is included in the live document)

The hydrocarbon spill arrangements shown in the rows of the schedule are tested against Woodside's regulatory commitments. Each arrangement has a support agency or company and an area to be tested (such as capability, equipment and personnel). For example, an arrangement could be to test Woodside personnel's capability for conducting scientific monitoring, or the ability of the Australian Marine Oil Spill Centre to provide response personnel and equipment.

The vertical columns relate to how hydrocarbon spill arrangements will be tested over the three-year rolling schedule. The subheading for the column describes the standard method of testing likely to be undertaken (such as discussion exercise, desktop exercise), and the green cells indicate the arrangements that could be tested for each method.

Some arrangements may be tested across multiple exercises (such as critical arrangements) or via other 'additional assurance' methods outside the formal Testing of Arrangements Schedule that also constitute sufficient evidence of testing of arrangements (such as audits, no-notice drills, internal exercises, assurance drills).

8.11.7.2 Exercises, Objectives and Key Performance Indicators

Exercises are designed to cumulatively provide assurance for all arrangements within Woodside's Testing of Arrangements Schedule annually across all facilities. Exercise-initiating scenarios are derived from the worst-case credible scenarios described in the relevant facility's First Strike Plans.

Objectives and KPIs for each exercise are determined by reviewing:

- the Testing of Arrangements Schedule, which identifies which arrangements can be tested for each testing method (Figure 8-1)
- the objectives and KPIs master generic plan, which summarises generic objectives and KPIs that could be tested for specific response strategies, based on industry good practice guidance (as in, International Petroleum Industry Environmental Conservation Association) for testing oil spill arrangements
- the oil spill ALARP commitments register, which summarises all spill response commitments from accepted EPs (such as timings, numbers) for different response strategies, and considers priority commitments and worst-cast spill scenarios
- actions undertaken from recommendations from previous exercises, where relevant.

The required capabilities, number of personnel, equipment and timeframes (as in, arrangements) form specific KPIs during an exercise. Where this is the case, the ALARP commitments register indicates the specific response strategy performance standards to use and test the arrangements against. Where relevant, the most stringent performance standard across all in-force EPs is used as the KPI. After each exercise, a report is produced that includes recommendations for improvements, which are then converted to actions and tracked in the Testing of Arrangements Register.

Additional assurance actions are also routinely undertaken outside formal exercises (such as response audits, no-notice drills) to support testing of these arrangements. Evidence and outcomes from additional assurance actions are used, where relevant, to support testing individual arrangements, including from external sources (such as evidence of suppliers testing their own arrangements).

8.11.8 Cyclone and Dangerous Weather Preparation

As the timing of some activities associated with the Petroleum Activities Program are not yet determined, it is possible activities will overlap with the cyclone season (November to April, with most cyclones occurring between January and March). If the Petroleum Activities Program occurs in cyclone season, the project vessel contractors must have a Cyclone Contingency Plan in place outlining the processes and procedures that would be implemented during a cyclone event, which will be reviewed and accepted by Woodside.

The project vessels will receive daily forecasts from the Bureau of Meteorology. If a cyclone (or severe weather event) is forecast, the path and its development will be plotted and monitored using the Bureau of Meteorology data. If there is the potential for the cyclone (severe weather event) to affect the Petroleum Activities Program, the Cyclone Contingency Plan will be actioned. If required, vessels can transit from the proposed track of the cyclone (severe weather event).

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10 GLOSSARY AND ABBREVIATIONS

10.1 Glossary

Term	Meaning
(the) Regulator	The Government Agency (State or Commonwealth) that is the decision maker for approvals and undertakes ongoing regulation of the approval once granted.
Acceptability	The EP must demonstrate that the environmental impacts and risks of an activity will be of an acceptable level as per Regulation 10A(c).
ALARP	A legal term in Australian safety legislation, it is taken here to mean that all contributory elements and stakeholdings have been considered by assessment of costs and benefits, and which identifies a preferred course of action.
API (gravity)	A measure of how heavy or light a petroleum liquid is compared to water.
Australian Standard	An Australian Standard which provides criteria and guidance on design, materials, fabrication, installation, testing, commissioning, operation, maintenance, re-qualification and abandonment.
Ballast	Extra weight taken on to increase a ship's stability to prevent rolling and pitching. Most ships use seawater as ballast. Empty tank space is filled with inert (non-combustible) gas to prevent the possibility of fire or explosion.
Bathymetry	Related to water depth – a bathymetry map shows the depth of water at a given location on the map.
Benthos/Benthic	Relating to the seabed, and includes organisms living in or on sediments/rocks on the seabed.
Biodiversity	Relates to the level of biological diversity of the environment. The EPBC Act defines biodiversity as: "the variability among living organisms from all sources (including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part) and includes: (a) diversity within species and between species; and (b) diversity of ecosystems".
Biota	The animal and plant life of a particular region, habitat, or geological period.
Cetacean	Whale and dolphin species.
Consequence	The worst-case credible outcome associated with the selected event assuming some controls (prevention and mitigation) have failed. Where more than one impact applies (such as environmental and legal/compliance), the consequence level for the highest severity impact is selected.
Coral	Anthozoa that are characterised by stone like, horny, or leathery skeletons (external or internal). The skeletons of these animals are also called coral.
Coral Reef	A wave-resistant structure resulting from skeletal deposition and cementation of hermatypic corals, calcareous algae, and other calcium carbonate-secreting organisms.
Crustacean	A large and variable group of mostly aquatic invertebrates which have a hard external skeleton (shell), segmented bodies, with a pair of often very modified appendages on each segment, and two pairs of antennae (such as crabs, crayfish, shrimps, wood lice, water fleas and barnacles).
Cyclone	A rapidly rotating storm system characterised by a low-pressure centre, strong winds, and a spiral arrangement of thunderstorms that produce heavy rain.
Datum	A reference location or elevation which is used as a starting point for subsequent measurements.
dB	Decibel – this is a measure of the overall noise level of sound across the audible spectrum with a frequency weighting (that is, 'A' weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.

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Term	Meaning
dB re 1 μPa^2	Measure of underwater noise, in terms of sound pressure. Because the dB is a relative measure, rather than an absolute measure, it must be referenced to a standard “reference intensity”, in this case 1 micro Pascal (1 mPa), which is the standard reference that is used. The dB is also measured over a specified frequency, which is usually either a one-Hertz bandwidth (expressed as dB re 1 mPa^2/Hz), or over a broadband which has not been filtered. Where a frequency is not specified, it can be assumed that the measurement is a broadband measurement.
dB re 1 $\mu\text{Pa}^2\cdot\text{s}$	Normal unit for sound exposure level.
Demersal	Living close to the floor of the sea (typically of fish).
Drill casing	Tubing that is set inside the drilled well to protect and support the well stream.
Drilling fluids	<p>The main functions of drilling fluids include providing hydrostatic pressure to prevent formation fluids from entering into the well bore, keeping the drill bit cool and clean during drilling, carrying out drill cuttings, and suspending the drill cuttings while drilling is paused and when the drilling assembly is brought in and out of the hole. The drilling fluid used for a particular job is selected to avoid formation damage and to limit corrosion.</p> <p>The three main categories of drilling fluids are water-based muds (which can be dispersed and non-dispersed), non-aqueous muds, usually called oil-based mud, and gaseous drilling fluid, in which a wide range of gases can be used.</p>
DRIMS	Woodside’s internal document management system.
Dynamic positioning	In reference to a marine vessel that uses satellite navigation and radio transponders in conjunction with thrusters to maintain its position.
EC ₅₀	the concentration of a drug, antibody or toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.
Endemic	A species that is native to or confined to a certain region.
Environment	The surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelations (Source: ISO 14001).
Environment Plan	Prepared in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, which must be assessed and accepted by the Designated Authority (NOPSEMA) before any petroleum-related activity can be performed.
Environment Regulations	OPGGS (Environment) Regulation 2009.
Environmental approval	The action of approving something, which has the potential to have an adverse impact on the environment. Environmental impact assessment is generally required before environmental approval is granted.
Environmental Hazard	The characteristic of an activity or event that could potentially cause damage, harm or adverse effects on the environment.
Environmental impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s activities, products or services (Source: HB 203:2006).
Environmental impact assessment	An orderly and systematic process for evaluating a proposal or scheme (including its alternatives), and its effects on the environment, and mitigation and management of those effects (Source: Western Australian <i>Environmental Impact Assessment Administrative Procedures 2010</i>).
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> . Commonwealth legislation designed to promote the conservation of biodiversity and protection of the environment.
Epifauna	Benthic animals that live on the surface of a substrate.
Fauna	Collectively, the animal life of a particular region.
Flora	Collectively the plant life of a particular region.
Habitat Critical	Habitat critical to their survival

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Term	Meaning
Infauna	Aquatic animals that live in the substrate of a body of water, especially in a soft sea bottom.
ISO 14001	ISO 14001 is an international standard that specifies a process (called an Environmental Management System or EMS) for controlling and improving a company's environmental performance. An EMS provides a framework for managing environmental responsibilities so that they become more efficient and more integrated into overall business operations.
LC ₅₀	The concentration of a substance that is lethal to 50% of the population exposed to it for a specified time.
Likelihood	The description that best fits the chance of the selected consequence actually occurring, assuming reasonable effectiveness of the prevention and mitigation controls.
Master Existing Environment	Appendix H in the approved Enfield Plug and Abandonment EP .
MARPOL (73/78)	The International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978. MARPOL 73/78 is one of the most important international marine environmental conventions. It was designed to minimise pollution of the seas, including dumping, oil and exhaust pollution. Its stated object is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances.
Mitigation	Management measures which minimise and manage undesirable consequences.
pH	measure of the acidity or basicity of an aqueous solution.
Protected Species	Threatened, vulnerable or endangered species which are protected from extinction by preventive measures. Often governed by special federal or state laws.
Putrescible	Refers to food scraps and other organic waste associated with food preparation that will be subject to decay and rot (putrefaction).
Risk	The combination of the consequences of an event and its associated likelihood. For guidance see Environmental Guidance on Application of Risk Management Procedure.
Sessile	Organism that is fixed in one place; immobile.
the Program	Streamlining Offshore Petroleum Environmental Approvals Program.
Zooplankton	Plankton consisting of small animals and the immature stages of larger animals.

10.2 Abbreviations

Abbreviation	Meaning
µm	micrometre
AFMA	Australian Fisheries Management Authority
AHO	Australian Hydrographic Office
AIMS	Australian Institute of Marine Science
AIS	Automatic Identification System
ALARP	as low as reasonably practicable
AMP	Australian Marine Park
AMSA	Australian Maritime Safety Authority
APASA	Asia Pacific Applied Science Associates
AS/NZS	Australian Standard/New Zealand Standard
ASAP	as soon as practicable
ASBTIA	Australian Southern Bluefin Tuna Industry Association

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Abbreviation	Meaning
ATSB	Australian Transport Safety Bureau
AWJ	abrasive water jet
BIA	biologically important area
CFA	Commonwealth Fisheries Association
CICC	Corporate Incident Communication Centre
CV	company values
DAA	Department of Aboriginal Affairs
DAWE	Department of Agriculture, Water and the Environment
DCCEEW	Department of Climate Change, Energy, Environment and Water
dB	decibel
DEWHA	Department of Environment, Water, Heritage and the Arts
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DNP	Director of National Parks
DoEE	Department of Environment and Energy
DP	dynamic positioning
DPIRD	Department of Primary Industries and Regional Development
DSEWPac	Department of Sustainability, Environment, Water, Population and Communities
EC ₅₀	half maximal effective concentration
EMBA	environment that may be affected
ENVID	environmental hazard identification
EP	Environment Plan
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPO	environmental performance outcome
ERP	Emergency Response Plans
ESD	ecologically sustainable development
EPS	environmental performance standard
FPSO	floating production, storage and offtake vessel
g/m ²	grams per square metre
GP	good practice
HSE	health, safety and environment
HSP	hydrocarbon spill preparedness
HQ	hazard quotient
HZ	hertz
IC	Incident Controller
IC ₅₀	half maximal inhibitory concentration
ICLDP	Incident and Crisis Leadership Development Program
IMO	International Maritime Organization
IMR	Inspection, maintenance and repair
IMS	invasive marine species

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Abbreviation	Meaning
ISO	International Standards Organization
ITOPF	International Tanker Owners Pollution Federation
IUCN	International Union for Conservation of Nature
JHA	job hazard analysis
JRCC	Joint Rescue Coordination Centre
KEF	key ecological feature
kHz	kilohertz
km	kilometre
kPa	kilopascal
KPI	key performance indicator
L	litre
LAT	lowest astronomical tide
LC ₅₀	lethal concentration, 50%
LCS	legislation, codes and standards
MC	measurement criteria
MFO	marine fauna observer
MNES	matters of national environmental significance (under the EPBC Act)
MPA	marine protected areas
ms ⁻¹	metres per second
MSIN	Maritime Safety Information Notifications
NIMS	non-indigenous marine species
NLPG	National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds
nm	nautical mile (1852 m), a unit of distance on the sea
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NTM	Notice to Mariners
NWMR	North-west Marine Region
NWS	North West Shelf
NT	Northern Territory
OCNS	Offshore Chemical Notification Scheme
OIM	Offshore Installation Manager
OPGGGS Act	Offshore Petroleum and Greenhouse Gas Storage Act
OSPAR	Oslo and Paris Commission for the Convention for the Protection of the Marine Environment of the North-East Atlantic
OSREC	Oil Spill Response Skills Enhancement Course
OVMSA	offshore vessel management system assessment
PGB	permanent guide base
PJ	professional judgement
PK	peak sound level

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Abbreviation	Meaning
PLONOR	OSPAR definition of a substance that poses little or no risk to the environment
PMST	Protected Matters Search Tool
PPA	Pilbara Ports Authority
ppb	parts per billion
ppm	parts per million
PTS	permanent threshold shift
RBA	risk-based analysis
RCC	Rescue Co-ordination Centre
rms	root mean square
ROV	remotely operated vehicle
SE	south-east
SEL	sound exposure level
SIMAP	Spill Impact Mapping and Analysis Program
SOPEP	Ship Oil Pollution Emergency Plan
SPL	sound pressure levels
SSE	south-southeast
SSW	south-southwest
SV	societal values
SW	south-west
TGB	temporary guide base
TSS	total suspended solids
TTS	temporary threshold shift
WA	Western Australia
WAFIC	Western Australian Fishing Industry Council
WMS	Woodside Management System
Woodside	Woodside Energy Group Ltd

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Environment and Biodiversity Policy

OBJECTIVE

Woodside recognises the intrinsic value of nature and the importance of conserving biodiversity and ecosystem services to support the sustainable development of our society. We are committed to doing our part. We understand and embrace our responsibility to undertake activities in an environmentally sustainable way.

PRINCIPLES

Woodside commits to:

- Implementing a systematic approach to the management of the impacts and risks of our operating activities on an ongoing basis, including emissions and air quality, discharge and waste management, water management, biodiversity and protected areas.
- Applying the mitigation hierarchy principle (avoid, minimise, restore) and a continuous improvement approach to ensure we maintain compliance, improve resource use efficiency and reduce our environmental impacts.
- Embedding environmental and biodiversity management, and opportunities, in our business planning and decision making processes.
- Complying with relevant laws and regulations and applying responsible standards where laws do not exist.
- Not undertaking new exploration or development of hydrocarbons within the boundaries of natural sites on the UNESCO World Heritage List (as specified at 1 December 2022). Existing activity may continue if compatible with maintenance of the listed outstanding universal values.
- Not undertaking new exploration or development of hydrocarbons within IUCN Protected Areas (as specified at 1 December 2022) unless compatible with management plans in place for the area. Existing activity may continue if compatible with management plans in place for the area.
- Achieving net zero deforestation¹ associated with new projects that take a Final Investment Decision (FID) after 1 December 2022.
- Developing Biodiversity Action Plans for all new major projects (CAPEX >USD\$2 billion) that take a FID after 1 December 2022.
- Supporting positive biodiversity outcomes in regions and areas in which we operate.
- Setting targets and publicly reporting on our environmental and biodiversity performance.

APPLICABILITY

Responsibility for the application of this Policy rests with all Woodside employees, contractors and joint venturers engaged in activities under Woodside operational control. Woodside managers are also responsible for promotion of this Policy in non-operated joint ventures.

This Policy will be reviewed regularly and updated as required.

Approved by the Woodside Energy Group Ltd Board in December 2022.

¹ Definition of Forest: 'trees higher than 5 metres and a canopy cover of more than 10 percent on the land to be cleared'.

APPROVED

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Controlled Ref No: G2000UF1401778035

Revision: 0

Woodside ID: 1401778035

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APPENDIX A: CORPORATE ENVIRONMENT AND BIODIVERSITY POLICY AND RISK MANAGEMENT POLICY

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Risk Management Policy

OBJECTIVES

Woodside recognises that risk is inherent in our business and the effective management of risk is vital to deliver our strategic objectives, continued growth and success. We are committed to managing risks in a proactive and effective manner as a source of competitive advantage.

Our approach protects us against potential negative impacts, enables us to take risk for reward and improves our resilience against emerging risks. The objective of our risk management framework is to provide a single consolidated view of risks across the company to understand our full risk exposure and prioritise risk management and governance.

The success of our approach lies in the responsibility placed on everyone at all levels to proactively identify, assess and treat risks relating to the objectives they are accountable for delivering.

PRINCIPLES

Woodside achieves these objectives by:

- Applying a structured and comprehensive framework for the identification, assessment and treatment of current risks and response to emerging risks;
- Ensuring line of sight of financial and non-financial risks at appropriate levels of the organisation;
- Demonstrating leadership and commitment to integrating risk management into our business activities and governance practices;
- Recognising the value of stakeholder engagement, best available information and proactive identification of potential changes in external and internal context;
- Embedding risk management into our critical business processes and control framework;
- Understanding our exposure to risk and tolerance for uncertainty to inform our decision making and assure that Woodside is operating with due regard to the risk appetite endorsed by the Board; and
- Evaluating and improving the effectiveness and efficiency our approach.

APPLICABILITY

The Managing Director of Woodside is accountable to the Board of Directors for ensuring this Policy is effectively implemented.

Responsibility for the application of this Policy rests with all Woodside employees, contractors and joint venturers engaged in activities under Woodside operational control. Woodside managers are also responsible for promotion of this Policy in non-operated joint ventures.

This Policy will be reviewed regularly and updated as required.

Reviewed by the Woodside Energy Group Ltd Board in December 2022.

APPENDIX B: RELEVANT LEGISLATIVE REQUIREMENTS

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APPENDIX B RELEVANT REQUIREMENTS

The below table refers to Commonwealth Legislation related to the project.

Commonwealth Legislation	Legislation Summary
<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>	<p>The Act seeks to “preserve and protect places, areas and objects of particular significance” to Aboriginal people. Under the Section 9 and 10 provisions of the Act, the Minister for the Environment may declare significant Aboriginal areas temporarily or permanently protected if they are considered under threat. Similar declarations regarding Aboriginal objects can be made under Section 12.</p> <p>Under Section 22 of the Act, the contravention of any of these declarations is an offence. Additionally, the discovery of any Aboriginal remains must be reported to the Minister under Section 20.</p> <p>Damage or interference with Aboriginal objects or places is not an offence under the ATSIHP Act except within Victoria under Section 21U.</p>
<p><i>Air Navigation Act 1920</i> Air Navigation Regulations 1947 Air Navigation (Aerodrome Flight Corridors) Regulations 1994 Air Navigation (Aircraft Engine Emissions) Regulations 1995 Air Navigation (Aircraft Noise) Regulations 1984 Air Navigation (Fuel Spillage) Regulations 1999</p>	<p>This Act relates to the management of air navigation.</p>
<i>Australian Maritime Safety Authority Act 1990</i>	<p>This Act establishes a legal framework for the Australian Maritime Safety Authority (AMSA), which represents the Australian Government and international forums in the development, implementation and enforcement of international standards including those governing ship safety and marine environment protection. AMSA is responsible for administering the Marine Orders in Commonwealth waters.</p>
<i>Australian Radiation Protection and Nuclear Safety Act 1998</i>	<p>This Act relates to the protection of the health and safety of people, and the protection of the environment from the harmful effects of radiation.</p>
<p><i>Biosecurity Act 2015</i> Quarantine Regulations 2000 Biosecurity Regulation 2016 Australian Ballast Water Management Requirements 2017</p>	<p>This Act provides the Commonwealth with powers to take measures of quarantine, and implement related programs as are necessary, to prevent the introduction of any plant, animal, organism or matter that could contain anything that could threaten Australia’s native flora and fauna or natural environment. The Commonwealth’s powers include powers of entry, seizure, detention and disposal.</p> <p>This Act includes mandatory controls on the use of seawater as ballast in ships and the declaration of sea vessels voyaging out of and into Commonwealth waters. The Regulations stipulate that all information regarding the voyage of the vessel and the ballast water is declared correctly to the quarantine officers.</p>
<p>Environment Protection and Biodiversity Conservation Act 1999 Environment Protection and Biodiversity Conservation Regulations 2000</p>	<p>This Act protects matters of national environmental significance (NES). It streamlines the national environmental assessment and approvals process, protects Australian biodiversity and integrates management of important natural and culturally significant places.</p> <p>Under this Act, actions that may be likely to have a significant impact on matters of NES must be referred to the Commonwealth Environment Minister.</p>

Commonwealth Legislation	Legislation Summary
<p><i>Environment Protection (Sea Dumping) Act 1981</i> Environment Protection (Sea Dumping) Regulations 1983</p>	<p>This Act provides for the protection of the environment by regulating dumping matter into the sea, incineration of waste at sea and placement of artificial reefs.</p>
<p><i>Industrial Chemicals (Notification and Assessment Act) 1989</i> Industrial Chemicals (Notification and Assessment) Regulations 1990</p>	<p>This Act creates a national register of industrial chemicals. The Act also provides for restrictions on the use of certain chemicals which could have harmful effects on the environment or health.</p>
<p><i>National Environment Protection Measures (Implementation) Act 1998</i> National Environment Protection Measures (Implementation) Regulations 1999</p>	<p>This Act and Regulations provide for the implementation of National Environment Protection Measures (NEPMs) to protect, restore and enhance the quality of the environment in Australia and ensure that the community has access to relevant and meaningful information about pollution.</p> <p>The National Environment Protection Council has made NEPMs relating to ambient air quality, the movement of controlled waste between states and territories, the national pollutant inventory, and used packaging materials.</p>
<p><i>National Greenhouse and Energy Reporting Act 2007</i> National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015</p>	<p>This Act and associated Rule establishes the legislative framework for the NGER scheme for reporting greenhouse gas emissions and energy consumption and production by corporations in Australia.</p>
<p><i>Navigation Act 2012</i> Marine Order 12: Construction – subdivision and stability, machinery and electrical installations Marine Order 30: Prevention of collisions Marine Order 47L Offshore Industry units Marine Order 57: Helicopter operations Marine Order 91: Marine pollution prevention – oil Marine Order 93: Marine pollution prevention – noxious liquid substances Marine Order 94: Marine pollution prevention – packaged harmful substances Marine Order 96: Marine pollution prevention - sewage Marine Order 97: Marine pollution prevention – air pollution</p>	<p>This Act regulates navigation and shipping including Safety of Life at Sea (SOLAS). The Act will apply to some activities of the FPSO and project vessels.</p> <p>This Act is the primary legislation that regulates ship and seafarer safety, shipboard aspects of marine environment protection and pollution prevention.</p>
<p><i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009</p>	<p>This Act is the principal Act governing offshore petroleum exploration and production in Commonwealth waters. Specific environmental, resource management and safety obligations are set out in the Regulations listed.</p>
<p><i>Ozone Protection and Synthetic Greenhouse Gas Management Act 1989</i> Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995</p>	<p>This Act provides for measures to protect ozone in the atmosphere by controlling and ultimately reducing the manufacture, import and export of ozone depleting substances (ODS) and synthetic greenhouse gases, and replacing them with suitable alternatives. The Act will only apply to Woodside if it manufactures, imports or exports ozone depleting substances.</p>
<p><i>Protection of the Sea (Powers of Intervention) Act 1981</i></p>	<p>This Act authorises the Commonwealth to take measures for the purpose of protecting the sea from pollution by oil and other noxious substances discharged from ships and provides legal immunity for persons acting under an AMSA direction.</p>

Commonwealth Legislation	Legislation Summary
<p><i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> Protection of the Sea (Prevention of Pollution from Ships) (Orders) Regulations 1994</p> <ul style="list-style-type: none"> • Marine Order 91: Marine pollution prevention – oil • Marine Order 93: Marine pollution prevention – noxious liquid substances • Marine Order 94: Marine pollution prevention – packaged harmful substances • Marine Order 95: Marine pollution prevention – garbage • Marine Order 96L Marine pollution prevention – sewage <p><i>Maritime Legislation Amendment (Prevention of Air Pollution from Ships) Act 2007</i> MARPOL Convention</p>	<p>This Act relates to the protection of the sea from pollution by oil and other harmful substances discharged from ships. Under this Act, discharge of oil or other harmful substances from ships into the sea is an offence. There is also a requirement to keep records of the ships dealing with such substances.</p> <p>The Act applies to all Australian ships, regardless of their location. It applies to foreign ships operating between 3 nm off the coast out to the end of the Australian Exclusive Economic Zone (200 nm). It also applies within the 3 nm of the coast where the State/Northern Territory does not have complementary legislation.</p> <p>All the Marine Orders listed, except for Marine Order 95, are enacted under both the <i>Navigation Act 2012</i> and the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i>.</p> <p>This Act is an amendment to the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i>. This amended Act provides the protection of the sea from pollution by oil and other harmful substances discharged from ships.</p>
<p><i>Protection of the Sea (Harmful Antifouling Systems) Act 2006</i> Marine Order 98: Marine pollution – anti-fouling systems</p>	<p>This Act relates to the protection of the sea from the effects of harmful anti-fouling systems. It prohibits the application or reapplication of harmful anti-fouling compounds on Australian ships or foreign ships that are in an Australian shipping facility.</p>
<p><i>Underwater Cultural Heritage Act 2018</i> Underwater Cultural Heritage Guidance for Offshore Developments DRAFT Guidelines to Protect Underwater Cultural Heritage</p>	<p>This Act prescribes penalties for damage to protected underwater cultural heritage without a permit under Section 30 or in contravention of a permit in section 28. Protected Underwater cultural heritage is prescribed in section 16 to automatically include the remains and associated artefacts of any vessel or aircraft that has been in Australian waters for 75 years, whether known or unknown. This protection is also extended to underwater cultural heritage in Commonwealth waters specified by the Environment Minister under section 17. Without a declaration under this section, Aboriginal underwater cultural heritage is not protected under the UCH Act.</p>

APPENDIX C: EPBC ACT PROTECTED MATTERS SEARCH REPORT

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Controlled Ref No: G2000UF1401778035

Revision: 0

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Department of Agriculture, Water and the Environment

Protected Matters Search Tool

Report Generated - 11:43AM - 11 April 2022

Matters of National Environment Significance	Count
World Heritage Properties	1
National Heritage Places	1
Wetlands of International Importance (Ramsar Wetlands)	0
Great Barrier Reef Marine Park	0
Commonwealth Marine Area	2
Listed Threatened Ecological Communities	0
Listed Threatened Species	51
Listed Migratory Species	65

Extra Information	Count
State and Territory Reserves	26
Regional Forest Agreements	0
Nationally Important Wetlands	1
EPBC Act Referrals	204
Key Ecological Features	6
Biologically Important Areas	38
Bioregional Assessments	0
Geological and Bioregional Assessments	0

Other Matters Protected by the EPBC Act	Count
Commonwealth Lands	11
Commonwealth Heritage Places	2
Listed Marine Species	113
Whales and Other Cetaceans	31
Critical Habitats	0
Commonwealth Reserves Terrestrial	0
Australian Marine Parks	7
Habitat Critical to the Survival of Marine Turtles	4

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected and is accurate at the time of generation. Please see the caveat for interpretation of information provided here. Consider carefully the age of information for decision making.

Report Metadata	Caveat
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World Heritage Places

Place ID	Place Name	State	Legal Status	Natural Values	Cultural Values	Website
106208	The Ningaloo Coast	WA	Declared property	vii,x		Australian Heritage

National Heritage Places

Place ID	Place Name	State	Heritage Class	Legal Status	Website
105881	The Ningaloo Coast	WA	Natural	Listed place	Australian Heritage

Commonwealth Marine Area

Feature Name
EEZ and Territorial Sea
Extended Continental

Listed Threatened Species

Species ID	Scientific Name	Common Name	Class	Simple Presence	Presence Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website
86432	<i>Limosa lapponica</i>	Northern Siberian Bar-	Bird	Known	Species or species habitat	Critically Endangered					Species Profile and Threat
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed		Species Profile and Threat
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
59350	<i>Pezoporus occidentalis</i>	Night Parrot	Bird	May	Species or species habitat	Endangered					Species Profile and Threat
59297	<i>Papasula abbotti</i>	Abbott's Booby	Bird	May	Species or species habitat	Endangered			Listed		Species Profile and Threat
89224	<i>Thalassarche cauta</i>	Shy Albatross	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
26021	<i>Phaethon lepturus fulvus</i>	Christmas Island White-	Bird	May	Species or species habitat	Endangered			Listed		Species Profile and Threat
77037	<i>Rostratula australis</i>	Australian Painted Snipe	Bird	Likely	Species or species habitat	Endangered			Listed - overfly marine		Species Profile and Threat
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	Known	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
64464	<i>Thalassarche carteri</i>	Indian Yellow-nosed	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
64459	<i>Thalassarche impavida</i>	Campbell Albatross,	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
26194	<i>Malurus leucopterus</i>	White-winged Fairy-wren	Bird	Likely	Species or species habitat	Vulnerable					Species Profile and Threat
877	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large	Bird	Known	Species or species habitat	Vulnerable	Migratory	Migratory Wetlands	Listed		Species Profile and Threat
66472	<i>Thalassarche melanophris</i>	Black-browed Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
929	<i>Falco hypoleucos</i>	Grey Falcon	Bird	Known	Species or species habitat	Vulnerable					Species Profile and Threat
64462	<i>Thalassarche steadi</i>	White-capped Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
1036	<i>Pterodroma mollis</i>	Soft-plumaged Petrel	Bird	Likely	Foraging, feeding or	Vulnerable			Listed		Species Profile and Threat
82950	<i>Sternula nereis nereis</i>	Australian Fairy Tern	Bird	Known	Breeding known to occur	Vulnerable					Species Profile and Threat

Listed Migratory Species

				Presence							
Species ID	Scientific Name	Common Name	Class	Rank	Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website
64464	<i>Thalassarche carteri</i>	Indian Yellow-nosed	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
64459	<i>Thalassarche impavida</i>	Campbell Albatross,	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
662	<i>Hirundo rustica</i>	Barn Swallow	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine		Species Profile and Threat
808	<i>Hydroprogne caspia</i>	Caspian Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as <i>Sterna caspia</i>)		Species Profile and Threat
844	<i>Limosa lapponica</i>	Bar-tailed Godwit	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat
89224	<i>Thalassarche cauta</i>	Shy Albatross	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
882	<i>Charadrius veredus</i>	Oriental Plover, Oriental	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
1022	<i>Sula leucogaster</i>	Brown Booby	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
877	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large	Bird	Known	Species or species habitat	Vulnerable	Migratory	Migratory Wetlands	Listed		Species Profile and Threat
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat
952	<i>Pandion haliaetus</i>	Osprey	Bird	Known	Breeding known to occur		Migratory	Migratory Wetlands	Listed		Species Profile and Threat
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
66472	<i>Thalassarche melanophris</i>	Black-browed Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
825	<i>Anous stolidus</i>	Common Noddy	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
817	<i>Sterna dougalli</i>	Roseate Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
678	<i>Apus pacificus</i>	Fork-tailed Swift	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed - overfly marine		Species Profile and Threat
82845	<i>Onychoprion anaethetus</i>	Bridled Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as <i>Sterna</i>)		Species Profile and Threat
1077	<i>Calonectris leucomelas</i>	Streaked Shearwater	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
82849	<i>Sterna albifrons</i>	Little Tern	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed (as <i>Sterna albifrons</i>)		Species Profile and Threat
642	<i>Motacilla cinerea</i>	Grey Wagtail	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine		Species Profile and Threat
644	<i>Motacilla flava</i>	Yellow Wagtail	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine		Species Profile and Threat
84292	<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as Puffinus)		Species Profile and Threat
843	<i>Limodromus</i>	Asian Dowitcher	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
840	<i>Glareola maldivarum</i>	Oriental Pratincole	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
59309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat
83000	<i>Thalasseus bergii</i>	Greater Crested Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Wetlands	Listed (as <i>Sterna bergii</i>)		Species Profile and Threat
1013	<i>Fregata minor</i>	Great Frigatebird, Greater	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
64462	<i>Thalassarche steadi</i>	White-capped Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
1014	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Bird	Known	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
1012	<i>Fregata ariel</i>	Lesser Frigatebird, Least	Bird	Known	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat
832	<i>Tringa nebularia</i>	Common Greenshank,	Bird	Likely	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed		Species Profile and Threat
82404	<i>Ardenna carneipes</i>	Flesh-footed Shearwater,	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed (as Puffinus)		Species Profile and Threat
858	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	Known	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat

Commonwealth Lands

Commonwealth Land ID	Commonwealth Land	Agency	State
52236	Commonwealth Land -	Unknown	WA
50193	Defence - LEARMONTH -	Defence	WA
50129	Defence - EXMOUTH	Defence	WA
50122	Defence - EXMOUTH VLF	Defence	WA
50126	Defence - EXMOUTH	Defence	WA
50124	Defence - EXMOUTH	Defence	WA
50125	Defence - EXMOUTH	Defence	WA
50123	Defence - EXMOUTH VLF	Defence	WA
50128	Defence - EXMOUTH	Defence	WA
50127	Defence - EXMOUTH	Defence	WA
50001	Defence - LEARMONTH	Defence	WA

Commonwealth Heritage Places

Place ID	Place Name	State	Heritage Class	Legal Status	Website
105548	Ningaloo Marine Area -	WA	Natural	Listed place	Australian Heritage
105551	Learmonth Air Weapons	WA	Natural	Listed place	Australian Heritage

Listed Marine Species										
64464	<i>Thalassarche carteri</i>	Indian Yellow-nosed	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
670	<i>Merops ornatus</i>	Rainbow Bee-eater	Bird	May	Species or species habitat				Listed - overfly marine	Species Profile and Threat
943	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	Bird	Known	Species or species habitat				Listed	Species Profile and Threat
64459	<i>Thalassarche impavida</i>	Campbell Albatross,	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
66521	<i>Bubulcus ibis</i>	Cattle Egret	Bird	May	Species or species habitat				Listed - overfly marine	Species Profile and Threat
90682	<i>Onychoprion fuscatus</i>	Sooty Tern	Bird	Known	Breeding known to occur				Listed (as <i>Sterna fuscata</i>)	Species Profile and Threat
662	<i>Hirundo rustica</i>	Barn Swallow	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine	Species Profile and Threat
808	<i>Hydroprogne caspia</i>	Caspian Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as <i>Sterna caspia</i>)	Species Profile and Threat
59297	<i>Papasula abbotti</i>	Abbott's Booby	Bird	May	Species or species habitat	Endangered			Listed	Species Profile and Threat
844	<i>Limosa lapponica</i>	Bar-tailed Godwit	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed	Species Profile and Threat
82949	<i>Sterna nereis</i>	Fairy Tern	Bird	Known	Breeding known to occur				Listed (as <i>Sterna nereis</i>)	Species Profile and Threat
89224	<i>Thalassarche cauta</i>	Shy Albatross	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
882	<i>Charadrius veredus</i>	Oriental Plover, Oriental	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
1022	<i>Sula leucogaster</i>	Brown Booby	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
877	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large	Bird	Known	Species or species habitat	Vulnerable	Migratory	Migratory Wetlands	Listed	Species Profile and Threat
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed	Species Profile and Threat
952	<i>Pandion haliaetus</i>	Osprey	Bird	Known	Breeding known to occur		Migratory	Migratory Wetlands	Listed	Species Profile and Threat
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
66472	<i>Thalassarche melanophris</i>	Black-browed Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
825	<i>Anous stolidus</i>	Common Noddy	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
817	<i>Sterna dougalli</i>	Roseate Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
678	<i>Apus pacificus</i>	Fork-tailed Swift	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed - overfly marine	Species Profile and Threat
82845	<i>Onychoprion anaethetus</i>	Bridled Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as <i>Sterna</i>)	Species Profile and Threat
1077	<i>Calonectris leucomelas</i>	Streaked Shearwater	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
82849	<i>Sterna albifrons</i>	Little Tern	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed (as <i>Sterna albifrons</i>)	Species Profile and Threat
811	<i>Larus pacificus</i>	Pacific Gull	Bird	Known	Breeding known to occur				Listed	Species Profile and Threat
26021	<i>Phaethon lepturus fulvus</i>	Christmas Island White-	Bird	May	Species or species habitat	Endangered			Listed	Species Profile and Threat
642	<i>Motacilla cinerea</i>	Grey Wagtail	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine	Species Profile and Threat
644	<i>Motacilla flava</i>	Yellow Wagtail	Bird	May	Species or species habitat		Migratory	Migratory Terrestrial	Listed - overfly marine	Species Profile and Threat
82326	<i>Chroicocephalus</i>	Silver Gull	Bird	Known	Breeding known to occur				Listed (as <i>Larus</i>)	Species Profile and Threat
84292	<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	Bird	Known	Breeding known to occur		Migratory	Migratory Marine Birds	Listed (as <i>Puffinus</i>)	Species Profile and Threat
843	<i>Limnodromus</i>	Asian Dowitcher	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
840	<i>Glareola maldivarum</i>	Oriental Pratincole	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
83425	<i>Chalcites osculans</i>	Black-eared Cuckoo	Bird	Known	Species or species habitat				Listed - overfly marine	Species Profile and Threat
59309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	Known	Species or species habitat		Migratory	Migratory Wetlands	Listed	Species Profile and Threat
83000	<i>Thalasseus bergii</i>	Greater Crested Tern	Bird	Known	Breeding known to occur		Migratory	Migratory Wetlands	Listed (as <i>Sterna bergii</i>)	Species Profile and Threat
77037	<i>Rostratula australis</i>	Australian Painted Snipe	Bird	Likely	Species or species habitat	Endangered			Listed - overfly marine	Species Profile and Threat
1013	<i>Fregata minor</i>	Great Frigatebird, Greater	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
64462	<i>Thalassarche steadi</i>	White-capped Albatross	Bird	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
1014	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Bird	Known	Species or species habitat		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
1012	<i>Fregata ariel</i>	Lesser Frigatebird, Least	Bird	Known	Species or species habitat		Migratory	Migratory Marine Birds	Listed	Species Profile and Threat
832	<i>Tringa nebularia</i>	Common Greenshank,	Bird	Likely	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed	Species Profile and Threat
66546	<i>Thalasseus bengalensis</i>	Lesser Crested Tern	Bird	Known	Breeding known to occur				Listed (as <i>Sterna</i>)	Species Profile and Threat
1036	<i>Pterodroma mollis</i>	Soft-plumaged Petrel	Bird	Likely	Foraging, feeding or	Vulnerable			Listed	Species Profile and Threat
82404	<i>Ardenna carneipes</i>	Flesh-footed Shearwater,	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed (as <i>Puffinus</i>)	Species Profile and Threat
858	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	Known	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	Known	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine	Species Profile and Threat

Whales and Other Cetaceans

				Presence							
Species ID	Scientific Name	Common Name	Class	Rank	Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website
87942	<i>Sousa sahalensis</i>	Australian Humpback	Mammal	Known	Species or species habitat		Migratory (as Sousa)	Migratory Marine Species		Cetacean (as Sousa)	Species Profile and Threat
72	<i>Indopacetus pacificus</i>	Longman's Beaked Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
74	<i>Mesoplodon densirostris</i>	Blainville's Beaked Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
85043	<i>Kogia sima</i>	Dwarf Sperm Whale	Mammal	May	Species or species habitat					Cetacean (as Kogia simus)	Species Profile and Threat
46	<i>Orcinus orca</i>	Killer Whale, Orca	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
48	<i>Pseudorca crassidens</i>	False Killer Whale	Mammal	Likely	Species or species habitat					Cetacean	Species Profile and Threat
34	<i>Balaenoptera borealis</i>	Sei Whale	Mammal	Likely	Foraging, feeding or	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
40	<i>Eubalaena australis</i>	Southern Right Whale	Mammal	Likely	Species or species habitat	Endangered	Migratory (as Balaena)	Migratory Marine Species		Cetacean	Species Profile and Threat
41	<i>Lagenodelphis hosei</i>	Fraser's Dolphin, Sarawak	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
57	<i>Kogia breviceps</i>	Pygmy Sperm Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
59	<i>Physeter macrocephalus</i>	Sperm Whale	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
56	<i>Ziphius cavirostris</i>	Cuvier's Beaked Whale,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
51	<i>Stenella attenuata</i>	Spotted Dolphin,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
52	<i>Stenella coeruleoalba</i>	Striped Dolphin,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
47	<i>Peponocephala electra</i>	Melon-headed Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
29	<i>Stenella longirostris</i>	Long-snouted Spinner	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
68417	<i>Tursiops truncatus s. str.</i>	Bottlenose Dolphin	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
35	<i>Balaenoptera edeni</i>	Bryde's Whale	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
59564	<i>Mesoplodon ginkgodens</i>	Ginkgo-toothed Beaked	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
68418	<i>Tursiops aduncus</i>	Indian Ocean Bottlenose	Mammal	Likely	Species or species habitat					Cetacean	Species Profile and Threat
67812	<i>Balaenoptera bonaerensis</i>	Antarctic Minke Whale,	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
38	<i>Megaptera novaengliae</i>	Humpback Whale	Mammal	Known	Breeding known to occur		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
33	<i>Balaenoptera</i>	Minke Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
30	<i>Steno bredanensis</i>	Rough-toothed Dolphin	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
37	<i>Balaenoptera physalus</i>	Fin Whale	Mammal	Likely	Foraging, feeding or	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
36	<i>Balaenoptera musculus</i>	Blue Whale	Mammal	Known	Migration route known to	Endangered	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
78900	<i>Tursiops aduncus</i>	Spotted Bottlenose	Mammal	Known	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat
64	<i>Grampus griseus</i>	Risso's Dolphin, Grampus	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
62	<i>Globicephala</i>	Short-finned Pilot Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
61	<i>Feresa attenuata</i>	Pygmy Killer Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat
60	<i>Delphinus delphis</i>	Common Dolphin, Short-	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat

Habitat Critical to the Survival of Marine Turtles

Species ID	Scientific Name	Common Name	Behaviour	Presence	Season	Website
1763	Caretta caretta	Loggerhead Turtle	Nesting	Known to occur	Nov-Feb	Species Profile and Threat
1765	Chelonia mydas	Green Turtle	Nesting	Known to occur	Dec - Jan	Species Profile and Threat
1766	Eretmochelys imbricata	Hawksbill Turtle	Nesting	Known to occur	Nov - May	Species Profile and Threat
59257	Natator depressus	Flatback Turtle	Nesting	Known to occur	Aug - Sep	Species Profile and Threat

Australian Marine Parks

Zone ID	Park Name	Zone & IUCN Categories	Network
nwninnpz02	Ningaloo	National Park Zone (IUCN)	North-west
nwgashpz02	Gascoyne	Habitat Protection Zone	North-west
nwninruz01	Ningaloo	Recreational Use Zone	North-west
nwgasnpx01	Gascoyne	National Park Zone (IUCN)	North-west
nwgasmuz03	Gascoyne	Multiple Use Zone (IUCN)	North-west
nwmonmuz01	Montebello	Multiple Use Zone (IUCN)	North-west
nwartmuz02	Argo-Rowley Terrace	Multiple Use Zone (IUCN)	North-west

Key Ecological Features

Name	Region	Website
Commonwealth waters adjacent to Ningaloo Reef	North-west	Key Ecological Feature
Glomar Shoals	North-west	Key Ecological Feature
Continental Slope Demersal Fish Communities	North-west	Key Ecological Feature
Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula	North-west	Key Ecological Feature
Exmouth Plateau	North-west	Key Ecological Feature
Ancient coastline at 125 m depth contour	North-west	Key Ecological Feature

Biologically Important Areas

Species ID	Scientific Name	Common Name	Species Group	Behaviour	Presence	Website
84292	<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	Seabirds	Breeding	Known to occur	Species Profile and Threat
1012	<i>Fregata ariel</i>	Lesser Frigatebird	Seabirds	Breeding	Known to occur	Species Profile and Threat
1014	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Seabirds	Breeding	Known to occur	Species Profile and Threat
817	<i>Sterna dougalli</i>	Roseate Tern	Seabirds	Breeding	Known to occur	Species Profile and Threat
82949	<i>Sternula nereis</i>	Fairy Tern	Seabirds	Breeding	Known to occur	Species Profile and Threat
1022	<i>Sula leucogaster</i>	Brown Booby	Seabirds	Breeding	Known to occur	Species Profile and Threat
66546	<i>Thalasseus bengalensis</i>	Lesser Crested Tern	Seabirds	Breeding	Known to occur	Species Profile and Threat

State and Territory Reserves

Protected Area ID	Protected Area Name	Reserve Type	State	Jurisdiction	Environment
WA_40828	Unnamed WA40828	5(1)(h) Reserve	WA	State	Terrestrial
WA_38728	Boodie, Double Middle	Nature Reserve	WA	State	Terrestrial
WA_40728	Bundegi Coastal Park	5(1)(h) Reserve	WA	State	Terrestrial
WA_40323	Airlie Island	Nature Reserve	WA	State	Terrestrial
WA_11648	Barrow Island	Nature Reserve	WA	State	Terrestrial
WA_44667	Unnamed WA44667	5(1)(h) Reserve	WA	State	Terrestrial
WA_31775	Muiron Islands	Nature Reserve	WA	State	Terrestrial
WA_33834	Serrurier Island	Nature Reserve	WA	State	Terrestrial
WA_40322	Unnamed WA40322	5(1)(h) Reserve	WA	State	Terrestrial
WA_42757	Round Island	Nature Reserve	WA	State	Terrestrial
WA_44666	Bessieres Island	Nature Reserve	WA	State	Terrestrial
WA_42196	Montebello Islands	Conservation Park	WA	State	Terrestrial
WA_40729	Jurabi Coastal Park	5(1)(h) Reserve	WA	State	Terrestrial
WA_33902	Lowendal Islands	Nature Reserve	WA	State	Terrestrial
WA_41080	Unnamed WA41080	5(1)(h) Reserve	WA	State	Terrestrial
WA_27288	Cape Range	National Park	WA	State	Terrestrial
WA_44668	North Sandy Island	Nature Reserve	WA	State	Terrestrial
WA_44665	Unnamed WA44665	5(1)(h) Reserve	WA	State	Terrestrial
372	Great Sandy Island	Nature Reserve	WA	State	Marine
375	Montebello Islands	Conservation Park	WA	State	Marine
035	Barrow Island	Marine Management Area	WA	State	Marine
149	Barrow Island	Marine Park	WA	State	Marine
382	Thevenard Island	Nature Reserve	WA	State	Marine
261	Ningaloo	Marine Park	WA	State	Marine
273	Muiron Islands	Marine Management Area	WA	State	Marine
242	Montebello Islands	Marine Park	WA	State	Marine

Nationally Important Wetlands

Reference Code	Wetland Name	State	Website
WAO06	Cape Range Subterranean	WA	Australian Wetlands

EPBC Act Referrals

Reference Number	Title of referral	Jurisdiction	Industry Type	Stage	Stage Description	Referral Outcome	Website
2007/3706	Tidepole Maz 3D Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4381	Guacamole 2D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6296	2D marine seismic survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2018/8236	Mardie Project, 80 km	WA	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2008/4111	Development of Browse	CM	Energy Generation and	Completed	Withdrawn	Controlled Action	EPBC Referral Detail
2008/4507	West Anchor 3D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2017	Ocean Bottom Cable	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/89	Searipple gas and	WA	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2464	Western Flank Gas	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/2514	Bonaventure 3D seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1890	Carnarvon 3D Marine	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2282	'Tourmaline' 2D marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2167	Moosehead 2D seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4553	Warramunga Non-	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5714	CGGVERITAS 2010 2D	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5715	Undertake a three	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4558	Enfield M4 4D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4493	2D seismic survey	CM	Science and Research	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2009/4703	Foxhound 3D Non-	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4351	Exploration drilling of Zeus	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/6952	Consturction & operation	WA	Commercial Development	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3917	Reindeer gas reservior	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1720	Cazadores 2D seismic	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3647	Cue Seismic Survey within	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5629	Salsa 3D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2003/914	'Goodwyn A' Low Pressure	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2014/7250	Airlie Island soil and	WA	Science and Research	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4466	Marine reconnaissance	CM	Science and Research	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4523	Grimalkin 3D Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2002/778	3D Seismic Survey in the	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5393	Offshore Canning Multi	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2002/754	Jansz-2 and 3 Appraisal	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2002/759	Exploration Well in Permit	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6579	Pyrenees 4D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/152	WA-295-P Kerr-McGee	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/257	Enfield full field	WA	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2002/685	Extension of Simpson Oil	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2021/9064	Ashburton Infrastructure	WA	Mining	Guidelines Issued	Guidelines Issued	Controlled Action	EPBC Referral List
2012/6654	CVG 3D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/6188	Balnaves Condensate Field	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/17	Maia-Gaea Exploration	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/11	Echo-Yodel Production	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2011/6110	Tortilla 2D Seismic Survey,	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4132	Exmouth West 2D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/7078	Bianchi 3D Marine Seismic	CM	Exploration (mineral, oil)	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2011/5916	Mermaid Marine Australia	WA	Water Management and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4134	Wheatstone Iago	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4469	Construct and operate	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2013/7093	Huzzas phase 2 marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/7092	DAVROS MC 3D marine	CM	Exploration (mineral, oil)	Post-Approval	Reconsidered	Not Controlled Action	EPBC Referral Detail
2012/6270	CVG 3D Marine Seismic	WA	Exploration (mineral, oil)	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2010/5695	Undertake a 3D marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2014/7223	Offshore Fibre Optic Cable	OAT	Telecommunications	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2018/8169	Effect of marine seismic	CM	Science and Research	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3844	Ocean Bottom Cable	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6680	Highlands 3D Marine	CM	Exploration (mineral, oil)	Completed	Withdrawn	Action Clearly	EPBC Referral Detail
2007/3941	Wheatstone Iago	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/2781	3D seismic survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2016/7836	Telstra North Rankin Spur	CM	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/5810	Stybarrow 4D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2003/970	Munmorah 2D seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/2715	3D seismic survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3262	Controlled Source	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2003/971	Exploration drilling well	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2033	Subsea Gas Pipeline From	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5507	Two Dimensional	WA	Exploration (mineral, oil)	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2009/5077	Quiberon 2D Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2034	Pyrenees Oil Fields	CM	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2008/3958	Geco Eagle 3D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4239	Rose 3D Seismic Program	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1868	Bollinger 2D Seismic	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/235	Manaslu - 1 and	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2325	Pyrenees-Macedon 3D	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2021/8967	Yardie Creek Road	WA	Transport - Land	Assessment Approach	Assessment Method	Controlled Action	EPBC Referral List

2008/4227	Cable Seismic Exploration	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3265	2D seismic survey within	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3260	Deep Water Northwest	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2141	Greater Gorgon	WA	Telecommunications	Completed	Withdrawn	Controlled Action	EPBC Referral Detail
2011/5861	Sovereign 3D Marine	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/5942	Gorgon Gas Development	WA	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2013/7003	Huzzas MC3D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5415	Laverda 3D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5681	Decommissioning of the	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/183	Harpy 1 exploration well	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2003/1271	3D Marine Seismic Survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3684	Glencoe 3D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/5980	Greater Western Flank	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3566	Hess Exploration Drilling	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/2609	Triton 3D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6658	Repsol 3d & 2D Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3495	Apache Northwest Shelf	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/59	Simpson Development	WA	Mining	Completed	Withdrawn	Controlled Action	EPBC Referral Detail
2018/8319	Browse to North West	CM	Mining	Final PER or EIS	Draft Report Completed	Controlled Action	EPBC Referral Detail
2001/417	Infill Production Well	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2146	2D Seismic Survey	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1469	Development of	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2008/4178	Gorgon Gas Revised	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2019/8578	Eagle-1 Exploration	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral List
2014/7373	To construct and operate	WA	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2009/4801	Judo Marine 3D Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/6123	Fletcher-Finucane	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3696	Stag Off-bottom Cable	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1761	Wheatstone 3D seismic	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/5995	Development of	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2015/7423	Thevenard Island	WA	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/3067	Draeck 3D Marine Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/3065	Exploration of appraisal	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/399	Coverack Marine Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/416	Skorpion Marine Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3458	3D marine seismic survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6648	Aperio 3D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2042	Echo A Development WA-	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3282	Baniyas-1 Exploration	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2002/731	Exploration Well (Taunton-	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2184	Develop Jansz-Io	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2005/1938	"Leanne" offshore 3D	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3213	'Van Gogh' Petroleum	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2009/5212	Agrippina 3D Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4530	Stybarrow Baseline 4D	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1805	Development of Angel gas	CM	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2011/5936	Julimar Brunello Gas	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/6175	3D Marine Seismic Survey	WA	Exploration (mineral, oil)	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2006/3132	Enfield oilfield 3D Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4565	Acheron Non-Exclusive 2D	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4219	3D Seismic Survey	WA	Exploration (mineral, oil)	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2005/2258	Pluto Gas Project	WA	Energy Generation and	Completed	Withdrawn	Controlled Action	EPBC Referral Detail
2012/6698	Varanus Island	WA	Energy Generation and	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2008/4281	3D marine seismic survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/2968	Pluto Gas Project Including	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2011/5871	Palta-1 exploration well in	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/3141	West Panaeus 3D seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4630	Judo Marine 3D Seismic	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2006/3148	'Van Gogh' Oil Appraisal	CM	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3856	Klimt 2D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3777	Lion 2D Marine Seismic	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4628	2D Seismic Survey Permit	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2018/8293	Wanda Offshore Research	CM	Science and Research	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/6901	3D Marine Seismic Surveys	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/6761	3D Marine Seismic Survey	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6301	Equus Gas Fields	CM	Energy Generation and	Completed	Withdrawn	Controlled Action	EPBC Referral Detail
2006/2667	Barrow Island 2D Seismic	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2003/1294	Gorgon Gas Development	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2012/6463	Westralia SPAN Marine	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/5830	Offshore Drilling Campaign	CM	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/3966	John Ross & Rosella Off	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5432	Artemis-1 Drilling Program	WA	Exploration (mineral, oil)	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2015/7411	Tantabiddi Boat Ramp	WA	Natural Resources	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2017/7996	INDIGO Marine Cable	CM	Telecommunications	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/365	Light Crude Oil Production	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2003/1033	Development of Mutineer	WA	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/3	Pipeline System	CM	Manufacturing	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1701	Drilling of an exploration	WA	Exploration (mineral, oil)	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/103	Bultaco-2, Laverda-2,	WA	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail

2000/102	Montesa-1 and Bultaco-1	WA	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5720	Vincent M1 and Enfield	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1703	Construction and	WA	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5723	Orcus 3D Marine Seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2020/8693	Ningaloo Lighthouse	WA	Commercial Development	Assessment Approach	Assessment Method	Controlled Action	EPBC Referral List
2009/4749	Eendracht Multi-Client 3D	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/490	Exploratory drilling in	CM	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2370	Enfield 4D Marine Seismic	CM	Energy Generation and	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2005/2290	Leopard 2D marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6522	Rydal-1 Petroleum	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4461	Drilling 35-40 offshore	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/6058	Wheatstone 3D MAZ	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5679	Undertake a three	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2002/868	Klammer 2D Seismic	WA	Science and Research	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2012/6699	Harmony 3D Marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2016/7645	Cerberus exploration	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5532	Deep Water Drilling	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2007/3477	Charon 3D Marine Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2000/22	Vincent Appraisal Well	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2008/4165	Stybarrow Baseline 4D	WA	Exploration (mineral, oil	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2012/6368	Honeycombs MC3D	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2009/4968	Acheron Non-Exclusive 2D	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/227	Simpson Oil Field	WA	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2008/4428	3D Seismic Survey, WA	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5360	Phoenix 3D Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2037	'Kate' 3D marine seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4605	Macedon Gas Field	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/6900	Earthworks for	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2151	2D and 3D seismic surveys	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/6862	3D Marine Seismic Survey	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2015/7522	Improving rabbit	NSW	Natural Resources	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1326	sub-sea tieback of Perseus	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/539	Huascaran-1 exploration	CM	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2010/5570	Gazelle 3D Marine Seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2004/1926	HCA05X Macedon	CM	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4220	Rose 3D Seismic	CM	Exploration (mineral, oil	Completed	Withdrawn	Referral Decision	EPBC Referral Detail
2010/5472	Pomodoro 3D Marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/3981	Enfield M3 & Vincent 4D	WA	Exploration (mineral, oil	Completed	Withdrawn	Not Controlled Action	EPBC Referral Detail
2010/5611	Development of Halyard	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/445	Differential Global	WA	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2011/6215	Osprey and Dionysus	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2001/263	Spool Base Facility	WA	Manufacturing	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2005/2110	Greater Enfield (Vincent)	CM	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2013/6811	The Scarborough Project -	CM	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail
2002/900	Demeter 3D Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/7081	Babylon 3D Marine	CM	Exploration (mineral, oil	Post-Approval	Reconsidered	Not Controlled Action	EPBC Referral Detail
2005/2500	North Rankin B gas	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2008/4122	Enfield M3 4D, Vincent 4D	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2013/7080	Stag 4D & Reindeer MAZ	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail
2021/9023	Project Highclere	CM	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral List
2011/6107	Santos Winchester three	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail

Department of Agriculture, Water and the Environment

Protected Matters Search Tool

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Matters of National Environment Significance	Count
World Heritage Properties	0
National Heritage Places	0
Wetlands of International Importance (Ramsar Wetlands)	0
Great Barrier Reef Marine Park	0
Commonwealth Marine Area	1
Listed Threatened Ecological Communities	0
Listed Threatened Species	24
Listed Migratory Species	37

Extra Information	Count
State and Territory Reserves	0
Regional Forest Agreements	0
Nationally Important Wetlands	0
EPBC Act Referrals	66
Key Ecological Features	3
Biologically Important Areas	8
Bioregional Assessments	0
Geological and Bioregional Assessments	0

Other Matters Protected by the EPBC Act	Count
Commonwealth Lands	0
Commonwealth Heritage Places	0
Listed Marine Species	70
Whales and Other Cetaceans	27
Critical Habitats	0
Commonwealth Reserves Terrestrial	0
Australian Marine Parks	1
Habitat Critical to the Survival of Marine Turtles	1

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected and is accurate at the time of generation. Please see the caveat for interpretation of information provided here. Consider carefully the age of information for decision making.

Report Metadata	Caveat
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Commonwealth Marine Area

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species

Species ID	Scientific Name	Common Name	Class	Simple Presence	Presence Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website	Buffer Status
85267	<i>Sphyrna lewini</i>	Scalloped Hammerhead	Shark	Known	Species or species habitat	Conservation Dependent					Species Profile and Threat	In feature area
69402	<i>Thunnus maccoyii</i>	Southern Bluefin Tuna	Fish	Known	Breeding known to occur	Conservation Dependent					Species Profile and Threat	In feature area
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
1118	<i>Aipysurus foliosquama</i>	Leaf-scaled Seasnake	Reptile	Likely	Species or species habitat	Critically Endangered			Listed		Species Profile and Threat	In feature area
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
1115	<i>Aipysurus apraefrontalis</i>	Short-nosed Seasnake	Reptile	Known	Species or species habitat	Critically Endangered			Listed		Species Profile and Threat	In feature area
36	<i>Balaenoptera musculus</i>	Blue Whale	Mammal	Known	Migration route known to	Endangered	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
26021	<i>Phaethon lepturus fulvus</i>	Christmas Island White-	Bird	May	Species or species habitat	Endangered			Listed		Species Profile and Threat	In feature area
1763	<i>Caretta caretta</i>	Loggerhead Turtle	Reptile	Known	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
1768	<i>Dermochelys coriacea</i>	Leatherback Turtle,	Reptile	Likely	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
37	<i>Balaenoptera physalus</i>	Fin Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
64470	<i>Carcharodon carcharias</i>	White Shark, Great White	Shark	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
60756	<i>Pristis pristis</i>	Freshwater Sawfish,	Shark	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
59257	<i>Natator depressus</i>	Flatback Turtle	Reptile	Known	Congregation or	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
34	<i>Balaenoptera borealis</i>	Sei Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
1766	<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
1765	<i>Chelonia mydas</i>	Green Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
66680	<i>Rhincodon typus</i>	Whale Shark	Shark	Known	Foraging, feeding or	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
82950	<i>Sternula nereis nereis</i>	Australian Fairy Tern	Bird	Likely	Foraging, feeding or	Vulnerable					Species Profile and Threat	In feature area
68752	<i>Carcharias taurus (west</i>	Grey Nurse Shark (west	Shark	Known	Species or species habitat	Vulnerable					Species Profile and Threat	In feature area
68447	<i>Pristis clavata</i>	Dwarf Sawfish,	Shark	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
68442	<i>Pristis zijsron</i>	Green Sawfish,	Shark	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area

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Listed Migratory Species

Species ID	Scientific Name	Common Name	Class	Presence		Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website	Buffer Status
				Rank	Text							
1012	<i>Fregata ariel</i>	Lesser Frigatebird, Least	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
1013	<i>Fregata minor</i>	Great Frigatebird, Greater	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
1014	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
38	<i>Megaptera novaeangliae</i>	Humpback Whale	Mammal	Known	Breeding known to occur		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
35	<i>Balaenoptera edeni</i>	Bryde's Whale	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
36	<i>Balaenoptera musculus</i>	Blue Whale	Mammal	Known	Migration route known to	Endangered	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
37	<i>Balaenoptera physalus</i>	Fin Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
825	<i>Anous stolidus</i>	Common Noddy	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
64470	<i>Carcharodon carcharias</i>	White Shark, Great White	Shark	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
1077	<i>Calonectris leucomelas</i>	Streaked Shearwater	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
59309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
90034	<i>Mobula birostris</i>	Giant Manta Ray	Shark	Likely	Species or species habitat		Migratory (as Manta)	Migratory Marine Species			Species Profile and Threat	In feature area
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
59	<i>Physeter macrocephalus</i>	Sperm Whale	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
60756	<i>Pristis pristis</i>	Freshwater Sawfish,	Shark	May	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
90033	<i>Mobula alfredi</i>	Reef Manta Ray, Coastal	Shark	Known	Species or species habitat		Migratory (as Manta)	Migratory Marine Species			Species Profile and Threat	In feature area
59257	<i>Natator depressus</i>	Flatback Turtle	Reptile	Known	Congregation or	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
34	<i>Balaenoptera borealis</i>	Sei Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
1766	<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
1765	<i>Chelonia mydas</i>	Green Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
46	<i>Orcinus orca</i>	Killer Whale, Orca	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
82947	<i>Isurus paucus</i>	Longfin Mako	Shark	Likely	Species or species habitat		Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
66680	<i>Rhincodon typus</i>	Whale Shark	Shark	Known	Foraging, feeding or	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
84108	<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark	Shark	Likely	Species or species habitat		Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
79073	<i>Isurus oxyrinchus</i>	Shortfin Mako, Mako	Shark	Likely	Species or species habitat		Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
858	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
1763	<i>Caretta caretta</i>	Loggerhead Turtle	Reptile	Known	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
1768	<i>Dermochelys coriacea</i>	Leatherback Turtle,	Reptile	Likely	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
87942	<i>Sousa sahulensis</i>	Australian Humpback	Mammal	May	Species or species habitat		Migratory (as Sousa)	Migratory Marine Species		Cetacean (as Sousa)	Species Profile and Threat	In feature area
78900	<i>Tursiops aduncus</i>	Spotted Bottlenose	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
68447	<i>Pristis clavata</i>	Dwarf Sawfish,	Shark	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
68442	<i>Pristis zijsron</i>	Green Sawfish,	Shark	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
68448	<i>Anoxypristis cuspidata</i>	Narrow Sawfish,	Shark	Known	Species or species habitat		Migratory	Migratory Marine Species			Species Profile and Threat	In feature area
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area

Listed Marine Species

				Presence								
Species ID	Scientific Name	Common Name	Class	Rank	Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website	Buffer Status
1012	<i>Fregata ariel</i>	Lesser Frigatebird, Least	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
1013	<i>Fregata minor</i>	Great Frigatebird, Greater	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
66255	<i>Micrognathus</i>	Tidepool Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1014	<i>Phaethon lepturus</i>	White-tailed Tropicbird	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
847	<i>Numenius</i>	Eastern Curlew, Far	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
825	<i>Anous stolidus</i>	Common Noddy	Bird	May	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
1120	<i>Aipysurus laevis</i>	Olive Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1121	<i>Aipysurus tenuis</i>	Brown-lined Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1122	<i>Astrotia stokesii</i>	Stokes' Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1123	<i>Disteira kingii</i>	Spectacled Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1124	<i>Disteira major</i>	Olive-headed Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1127	<i>Ephalophis greyi</i>	North-western Mangrove	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66273	<i>Solegnathus lettiensis</i>	Gunther's Pipehorse,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66272	<i>Solegnathus hardwickii</i>	Pallid Pipehorse,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66192	<i>Campichthys tricariniatus</i>	Three-keel Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
75601	<i>Hydrophis macdowellii</i>	Small-headed Seasnake	Reptile	May	Species or species habitat				Listed (as Hydrophis)		Species Profile and Threat	In feature area
66279	<i>Syngnathoides</i>	Double-end Pipehorse,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1077	<i>Calonectris leucomelas</i>	Streaked Shearwater	Bird	Likely	Species or species habitat		Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
59309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
1060	<i>Macronectes giganteus</i>	Southern Giant-Petrel,	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Marine Birds	Listed		Species Profile and Threat	In feature area
1118	<i>Aipysurus follosquama</i>	Leaf-scaled Seasnake	Reptile	Likely	Species or species habitat	Critically Endangered			Listed		Species Profile and Threat	In feature area
66719	<i>Phoxocampus belcheri</i>	Black Rock Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1091	<i>Pelamis platurus</i>	Yellow-bellied Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
59257	<i>Natator depressus</i>	Flatback Turtle	Reptile	Known	Congregation or	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
66717	<i>Doryrhamphus</i>	Many-banded Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66183	<i>Solenostomus</i>	Robust Ghostpipefish,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66206	<i>Cosmocampus banneri</i>	Roughridge Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1766	<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
1765	<i>Chelonia mydas</i>	Green Turtle	Reptile	Known	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
66210	<i>Doryrhamphus</i>	Banded Pipefish, Ringed	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66211	<i>Doryrhamphus excisus</i>	Bluestripe Pipefish, Indian	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66216	<i>Festucalex scalaris</i>	Ladder Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66217	<i>Filicampus tigris</i>	Tiger Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66212	<i>Doryrhamphus janssi</i>	Cleaner Pipefish, Janss'	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66198	<i>Choeroichthys sullus</i>	Pig-snouted Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66231	<i>Hippichthys penicillus</i>	Beady Pipefish, Steep-	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
87374	<i>Leiostelmas czeblukovi</i>	Fine-spined Seasnake,	Reptile	May	Species or species habitat				Listed (as Hydrophis)		Species Profile and Threat	In feature area
87377	<i>Chitulia ornata</i>	Spotted Seasnake, Ornate	Reptile	May	Species or species habitat				Listed (as Hydrophis)		Species Profile and Threat	In feature area
1104	<i>Hydrophis elegans</i>	Elegant Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1100	<i>Hydrelaps darwiniensis</i>	Black-ringed Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66200	<i>Corythaichthys</i>	Reticulate Pipefish, Yellow-	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species habitat	Critically Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
855	<i>Calidris canutus</i>	Red Knot, Knot	Bird	May	Species or species habitat	Endangered	Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
66237	<i>Hippocampus kuda</i>	Spotted Seahorse, Yellow	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66234	<i>Hippocampus angustus</i>	Western Spiny Seahorse,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66239	<i>Hippocampus</i>	Hedgehog Seahorse	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66236	<i>Hippocampus histrix</i>	Spiny Seahorse, Thorny	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
858	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed - overfly marine		Species Profile and Threat	In feature area
66238	<i>Hippocampus planifrons</i>	Flat-face Seahorse	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66221	<i>Halicampus grayi</i>	Mud Pipefish, Gray's	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66226	<i>Haliichthys taeniophorus</i>	Ribboned Pipehorse,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
26021	<i>Phaethon lepturus fulvus</i>	Christmas Island White-	Bird	May	Species or species habitat	Endangered			Listed		Species Profile and Threat	In feature area
66224	<i>Halicampus nitidus</i>	Glittering Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66225	<i>Halicampus spinirastris</i>	Spiny-snout Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66280	<i>Trachyrhamphus</i>	Bentstick Pipefish, Bend	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66720	<i>Hippocampus</i>	Three-spot Seahorse, Long-	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66281	<i>Trachyrhamphus</i>	Straightstick Pipefish, Long-	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1763	<i>Caretta caretta</i>	Loggerhead Turtle	Reptile	Known	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
66196	<i>Choeroichthys</i>	Muiron Island Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1768	<i>Dermochelys coriacea</i>	Leatherback Turtle,	Reptile	Likely	Species or species habitat	Endangered	Migratory	Migratory Marine Species	Listed		Species Profile and Threat	In feature area
66186	<i>Acentronura larsonae</i>	Helen's Pygmy Pipehorse	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66213	<i>Doryrhamphus</i>	Flagtail Pipefish, Masthead	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
66189	<i>Bulbonaricus brauni</i>	Braun's Pughead Pipefish,	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1116	<i>Aipysurus duboisii</i>	Dubois' Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1117	<i>Aipysurus eydouxii</i>	Spine-tailed Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1114	<i>Acalyptophis peronii</i>	Horned Seasnake	Reptile	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
1115	<i>Aipysurus apraefrontalis</i>	Short-nosed Seasnake	Reptile	Known	Species or species habitat	Critically Endangered			Listed		Species Profile and Threat	In feature area
66219	<i>Halicampus bracki</i>	Brock's Pipefish	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	May	Species or species habitat		Migratory	Migratory Wetlands	Listed		Species Profile and Threat	In feature area
66194	<i>Choeroichthys</i>	Pacific Short-bodied	Fish	May	Species or species habitat				Listed		Species Profile and Threat	In feature area

Whales and Other Cetaceans

				Presence								
Species ID	Scientific Name	Common Name	Class	Rank	Text	Threatened Category	Migratory Status	Migratory Category	Marine Status	Cetacean Status	Website	Buffer Status
33	<i>Balaenoptera</i>	Minke Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
38	<i>Megaptera novaeangliae</i>	Humpback Whale	Mammal	Known	Breeding known to occur		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
35	<i>Balaenoptera edeni</i>	Bryde's Whale	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
36	<i>Balaenoptera musculus</i>	Blue Whale	Mammal	Known	Migration route known to	Endangered	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
37	<i>Balaenoptera physalus</i>	Fin Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
30	<i>Steno bredanensis</i>	Rough-toothed Dolphin	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
52	<i>Stenella coeruleoalba</i>	Striped Dolphin,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
29	<i>Stenella longirostris</i>	Long-snouted Spinner	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
68418	<i>Tursiops aduncus</i>	Indian Ocean Bottlenose	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
56	<i>Ziphius cavirostris</i>	Cuvier's Beaked Whale,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
57	<i>Kogia breviceps</i>	Pygmy Sperm Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
59	<i>Physeter macrocephalus</i>	Sperm Whale	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
51	<i>Stenella attenuata</i>	Spotted Dolphin,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
34	<i>Balaenoptera borealis</i>	Sei Whale	Mammal	Likely	Species or species habitat	Vulnerable	Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
46	<i>Orcinus orca</i>	Killer Whale, Orca	Mammal	May	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
47	<i>Pepanoccephala electra</i>	Melon-headed Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
85043	<i>Kogia sima</i>	Dwarf Sperm Whale	Mammal	May	Species or species habitat					Cetacean (as <i>Kogia simus</i>)	Species Profile and Threat	In feature area
64	<i>Grampus griseus</i>	Risso's Dolphin, Grampus	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
62	<i>Globicephala</i>	Short-finned Pilot Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
61	<i>Feresa attenuata</i>	Pygmy Killer Whale	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
68417	<i>Tursiops truncatus s. str.</i>	Bottlenose Dolphin	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
60	<i>Delphinus delphis</i>	Common Dolphin, Short-	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
48	<i>Pseudorca crassidens</i>	False Killer Whale	Mammal	Likely	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
87942	<i>Sousa sahulensis</i>	Australian Humpback	Mammal	May	Species or species habitat		Migratory (as <i>Sousa</i>	Migratory Marine Species		Cetacean (as <i>Sousa</i>	Species Profile and Threat	In feature area
78900	<i>Tursiops aduncus</i>	Spotted Bottlenose	Mammal	Likely	Species or species habitat		Migratory	Migratory Marine Species		Cetacean	Species Profile and Threat	In feature area
74	<i>Mesoplodon densirostris</i>	Blainville's Beaked Whale,	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area
41	<i>Lagenodelphis hosei</i>	Fraser's Dolphin, Sarawak	Mammal	May	Species or species habitat					Cetacean	Species Profile and Threat	In feature area

Australian Marine Parks

Zone ID	Park Name	Zone & IUCN Categories	Network	Buffer Status
nwmonmuz01	Montebello	Multiple Use Zone (IUCN)	North-west	In feature area

Habitat Critical to the Survival of Marine Turtles

Species ID	Scientific Name	Common Name	Behaviour	Presence	Season	Website	Buffer Status
Habita	Natator depressus	Flatback Turtle	Nesting	Known to occur	Aug - Sep	Species Profile and Threat	In feature area

Key Ecological Features

Name	Region	Website	Buffer Status
Glomar Shoals	North-west	Key Ecological Feature	In feature area
Continental Slope Demersal Fish Communities	North-west	Key Ecological Feature	In feature area
Ancient coastline at 125 m depth contour	North-west	Key Ecological Feature	In feature area

EPBC Act Referrals

Reference Number	Title of referral	Jurisdiction	Industry Type	Stage	Stage Description	Referral Outcome	Website	Buffer Status
2011/6107	Santos Winchester three	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2012/6648	Aperio 3D Marine Seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2002/900	Demeter 3D Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2005/2464	Western Flank Gas	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2000/89	Searipple gas and	WA	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2013/7080	Stag 4D & Reindeer MAZ	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2007/3647	Cue Seismic Survey within	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4630	Judo Marine 3D Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/2781	3D seismic survey	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2010/5714	CGGVERITAS 2010 2D	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2009/4703	Foxhound 3D Non-	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2003/1294	Gorgon Gas Development	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2012/6463	Westralia SPAN Marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2009/4801	Judo Marine 3D Seismic	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2004/1703	Construction and	WA	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2010/5611	Development of Halyard	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2004/1805	Development of Angel gas	CM	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2011/6123	Fletcher-Finucane	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2007/3706	Tidepole Maz 3D Seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2007/3260	Deep Water Northwest	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4469	Construct and operate	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2004/1326	sub-sea tieback of	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4461	Drilling 35-40 offshore	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/2715	3D seismic survey	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/6188	Balnaves Condensate	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/5936	Julimar Brunello Gas	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/2968	Pluto Gas Project	WA	Energy Generation and	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2000/11	Echo-Yodel Production	CM	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2007/3941	Wheatstone Iago	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2003/914	'Goodwyn A' Low	CM	Mining	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4507	West Anchor 3D Marine	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/3141	West Panaeus 3D seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2004/1761	Wheatstone 3D seismic	CM	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/3065	Exploration of appraisal	WA	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4227	Cable Seismic Exploration	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/5830	Offshore Drilling	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2010/5472	Pomodoro 3D Marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2005/2042	Echo A Development	WA	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2013/7092	DAVROS MC 3D marine	CM	Exploration (mineral, oil	Post-Approval	Reconsidered	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4111	Development of Browse	CM	Energy Generation and	Completed	Withdrawn	Controlled Action	EPBC Referral Detail	In feature area
2008/3966	John Ross & Rosella Off	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/5980	Greater Western Flank	CM	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2000/17	Maia-Gaea Exploration	WA	Exploration (mineral, oil	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2005/1938	"Leanne" offshore 3D	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/6215	Osprey and Dionysus	WA	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2018/8319	Browse to North West	CM	Mining	Final PER or EIS	Draft Report Completed	Controlled Action	EPBC Referral Detail	In feature area
2012/6699	Harmony 3D Marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2006/2609	Triton 3D Marine Seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2003/1033	Development of Mutineer	WA	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/6058	Wheatstone 3D MAZ	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2000/3	Pipeline System	CM	Manufacturing	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2005/2282	'Tourmaline' 2D marine	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2021/9023	Project Highclere	CM	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral List	In feature area
2005/2258	Pluto Gas Project	WA	Energy Generation and	Completed	Withdrawn	Controlled Action	EPBC Referral Detail	In feature area
2010/5681	Decommissioning of the	WA	Energy Generation and	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2016/7836	Telstra North Rankin Spur	CM	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2011/5942	Gorgon Gas Development	WA	Mining	Post-Approval	Approval Decision Made	Controlled Action	EPBC Referral Detail	In feature area
2005/2167	Moosehead 2D seismic	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2014/7373	To construct and operate	WA	Telecommunications	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4239	Rose 3D Seismic Program	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In buffer area only
2005/2500	North Rankin B gas	CM	Energy Generation and	Completed	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2013/6862	3D Marine Seismic Survey	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2008/4134	Wheatstone Iago	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area
2003/1271	3D Marine Seismic Survey	CM	Exploration (mineral, oil	Post-Approval	Referral Decision Made	Not Controlled Action	EPBC Referral Detail	In feature area

Biologically Important Areas

Species ID	Scientific Name	Common Name	Species Group	Behaviour	Presence	Website	Buffer Status
1765	Chelonia mydas	Green Turtle	Marine Turtles	Internesting buffer	Known to occur	Species Profile and Threat	In feature area
1766	Eretmochelys imbricata	Hawksbill Turtle	Marine Turtles	Internesting buffer	Known to occur	Species Profile and Threat	In feature area
59257	Natator depressus	Flatback Turtle	Marine Turtles	Internesting buffer	Known to occur	Species Profile and Threat	In feature area
84292	Ardenna pacifica	Wedge-tailed Shearwater	Seabirds	Breeding	Known to occur	Species Profile and Threat	In feature area
66680	Rhincodon typus	Whale Shark	Sharks	Foraging	Known to occur	Species Profile and Threat	In feature area
81317	Balaenoptera musculus	Pygmy Blue Whale	Whales	Distribution	Known to occur	Species Profile and Threat	In feature area
81317	Balaenoptera musculus	Pygmy Blue Whale	Whales	Migration	Known to occur	Species Profile and Threat	In feature area
38	Megaptera novaeangliae	Humpback Whale	Whales	Migration (north and	Known to occur	Species Profile and Threat	In feature area

APPENDIX D: OIL SPILL PREPAREDNESS AND RESPONSE MITIGATION ASSESSMENT

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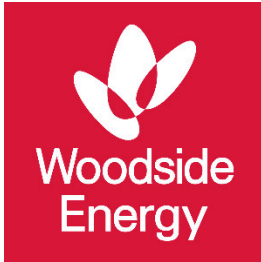
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For WEL
Under PO/Contract No:



Oil Spill Preparedness and Response Mitigation Assessment for NWS and Julimar Exploration Wellhead Decommissioning Environment Plan

Corporate HSE

Hydrocarbon Spill Preparedness

November 2023

Revision 0

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EXECUTIVE SUMMARY

Woodside Energy Ltd. and Woodside Energy Julimar Pty Ltd. (Woodside) have developed an oil spill preparedness and response position for the NWS and Julimar Exploration Wellhead Decommissioning activities, hereafter known as the Petroleum Activities Program (PAP).

This document demonstrates that the risks and impacts from an unplanned hydrocarbon release, and the associated response operations, are controlled to As Low as Reasonably Practicable (ALARP) and acceptable levels. It achieves this by evaluating response options to address the potential environmental impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the Environment Plan (EP). This document then outlines Woodside’s decisions and techniques for responding to a hydrocarbon release event and the process for determining its level of hydrocarbon spill preparedness.

A summary of the key facts and references to additional detail within this document are presented below.

Table 0-1: Summary of the key details for assessment

Key details of assessment	Summary	Reference to additional detail
Worst Case Credible Scenario (WCCS)	<p>Credible Scenario 1 (Julimar)¹ (CS-01 (Julimar)): Short-Term (Instantaneous) Surface Release of Marine Diesel Oil (MDO) in the WA-49-L Permit Area²</p> <p>This spill is a short-term (instantaneous) uncontrolled surface release of 500 m³ of marine diesel, representing loss of hydrocarbon containment after a vessel collision, at the Balnaves Deep-1 wellhead location (closest wellhead to Tryal Rocks), located within the WA-49-L permit area (20° 04' 58.213" S, 115° 10' 34.192" E).</p>	Section 2.2
Hydrocarbon Properties	<p>MDO</p> <p>MDO is a mixture of volatile and persistent hydrocarbons with low proportions of highly volatile and residual components. In general, about 6% of the oil mass should evaporate within the first 12 hours (BP < 180 °C); 35% should evaporate within the first 24 hours (180 °C < BP < 265 °C) (41% in total within first 24 hours); and 54% should evaporate over several days (265 °C < BP < 380 °C). Approximately 5% of the oil is shown to be persistent. Under calm conditions the majority of the remaining oil on the water surface will weather at a slower rate due to being comprised of the longer-chain compounds with higher boiling points. Evaporation of the residual compounds will slow significantly, and they will then be subject to more gradual decay through biological and photochemical processes.</p>	Section 7.7.2 of the EP Appendix A of the First Strike Plan

¹ Labelled as Credible Scenario 1 (Julimar) to be consistent with RPS modelling report.

² RPS (2022), Woodside Julimar Joint Venture Decommissioning Report (MAW1124J.000)

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<p>Modelling Results</p>	<p>A quantitative, stochastic assessment has been undertaken for the credible spill scenarios to help assess the environmental risk of a hydrocarbon spill from a vessel collision.</p> <p>Three modelling locations were selected within the PAP area as the closest points to identified sensitive receptors as detailed below:</p> <ul style="list-style-type: none"> • Credible Scenario-01 (NWS) (CS-01 (NWS)): 500 m³ surface release of MDO at the NWS Angel-3 wellhead (19° 23' 26.031" S, 116° 37' 47.254" E)– closest wellhead to Glomar Shoals • Credible Scenario-02 (NWS) (CS-02 (NWS)): 500 m³ surface release of MDO at the Nora-2 wellhead (19° 49' 59.820" S, 115° 37' 14.440" E) wellheads – closest wellhead to Rankin Bank • Credible Scenario-01 (Julimar) (CS-01 (Julimar)): 500 m³ surface release of MDO at the Julimar Balnaves Deep-1 wellhead (20° 4' 58.213" S, 115° 10' 34.192" E) – closest wellhead to Tryal Rocks and 47 km northwest of the Montebello Islands Group. <p>The spill at Julimar Balnaves Deep-1 (CS-01 (Julimar)) wellhead was selected as the Worst-Case Credible Scenario (WCCS) as it results in floating oil at 50 g/m², faster entrained contact at 100 ppb and the greatest shoreline contact.</p> <p>The results of the modelling can be used to demonstrate that a spill of the same volume, but closer to sensitive receptors and still within the vicinity of the Operational Area, has an Environment that May Be Affect (EMBA) that is not predicted to include any surface slicks above threshold volumes entering WA State waters, or any shoreline contact or accumulation. Basing the impact assessment for a vessel collision scenario on this modelling is considered reasonable and representative of the spill risk.</p> <p>For each modelled scenario, a total of 200 replicate simulations were completed over an annual period to test for trends and variations in the trajectory and weathering of the spilled oil, with an equal number of replicates completed using samples of metocean data that commenced within each calendar quarter (50 simulations per quarter).</p>	<p>Section 2.3.4</p>	
	<p>Minimum time to shoreline impact (above 100 g/m²)</p>	<p>NA – all modelled scenarios confirmed no shoreline contact above 100 g/m²</p>	
	<p>Largest volume ashore at any single Response Protection Area (RPA) (above 100 g/m²)</p>	<p>NA – all modelled scenarios confirmed no shoreline contact above 100 g/m²</p>	
	<p>Largest total shoreline accumulation (above 100 g/m²) all shorelines</p>	<p>NA – all modelled scenarios confirmed no shoreline contact above 100 g/m²</p>	
<p>Net Environmental Benefit Analysis</p>	<p>Monitor and Evaluate, Source Control via vessel Shipboard Oil Pollution Environment Plan (SOPEP), and Oiled Wildlife Response, are all identified as potentially having a net environmental benefit (dependent on the actual spill scenario) and carried forward for further assessment.</p>	<p>Section 0</p>	

ALARP Evaluation of Selected Response Techniques	The evaluation of the selected response techniques shows the proposed controls reduced the risk to an ALARP and acceptable level for the risks presented in Sections 2 and 3, without the implementation of considered additional, alternative or improved control measures.	Section 6
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1 INTRODUCTION

1.1 Overview

Woodside Energy Ltd. and Woodside Energy Julimar Pty Ltd. (Woodside) has developed its oil spill preparedness and response position for the NWS and Julimar Exploration Wellhead Decommissioning, hereafter known as the Petroleum Activities Program (PAP). This document outlines Woodside's decisions and techniques for responding to a hydrocarbon loss of containment event and the process for determining its level of hydrocarbon spill preparedness.

1.2 Purpose

This document, together with the documents listed below, meet the requirements of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Environment Regulations) relating to hydrocarbon spill response arrangements.

- NWS and Julimar Exploration Wellhead Decommissioning Environment Plan (EP)
- Oil Pollution Emergency Arrangements (OPEA) (Australia)
- NWS and Julimar Exploration Wellhead Decommissioning Oil Pollution Emergency Plan (OPEP) including:
 - First Strike Plan (FSP)
 - Relevant Operations Plans
 - Relevant Tactical Response Plans (TRPs)
 - Relevant Supporting Plans
 - Data Directory.

The purpose of this document is to demonstrate that the risks and impacts from an unplanned hydrocarbon release and the associated response operations are controlled to As Low as Reasonably Practicable (ALARP) and acceptable levels.

1.3 Scope

This document demonstrates that the risks and impacts from an unplanned hydrocarbon release, and the associated response operations, are controlled to As Low as Reasonably Practicable (ALARP) and acceptable levels. It achieves this by evaluating response options to address the potential environmental risks and impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the EP. This document then outlines Woodside's decisions and techniques for responding to a hydrocarbon release event and the process for determining its level of hydrocarbon spill preparedness. It should be read in conjunction with the documents listed in **Table 1-1**. The location of the PAP is shown in **Figure 2-3**.

1.4 Oil spill response document overview

The documents outlined in **Table 1-1** and **Figure 1-1** are collectively used to manage the preparedness and response for a hydrocarbon release.

The Oil Pollution First Strike Plan (FSP) contains a pre-operational Net Environmental Benefit Analysis (NEBA) summary, outlining the selected response techniques for this PAP. Relevant Operational Plans to be initiated for associated response techniques are identified in the FSP and relevant forms to initiate a response are appended to the FSP.

The process to develop an Incident Action Plan (IAP) begins once the Oil Pollution FSP is underway. The IAP includes inputs from the Operational Monitoring operations and the operational NEBA (Section 0). Planning, coordination and resource management are initiated by the Corporate Incident

Management Team (CIMT). In some instances, technical specialists may be utilised to provide expert advice. The planning may also involve liaison officers from supporting government agencies.

During each operational period, field reports are continually reviewed to evaluate the effectiveness of response operations. In addition, the operational NEBA is continually reviewed and updated so the response techniques implemented continue to result in a net environmental benefit (Section 0).

The response will continue as described in Section 5 until the response termination criteria have been met.

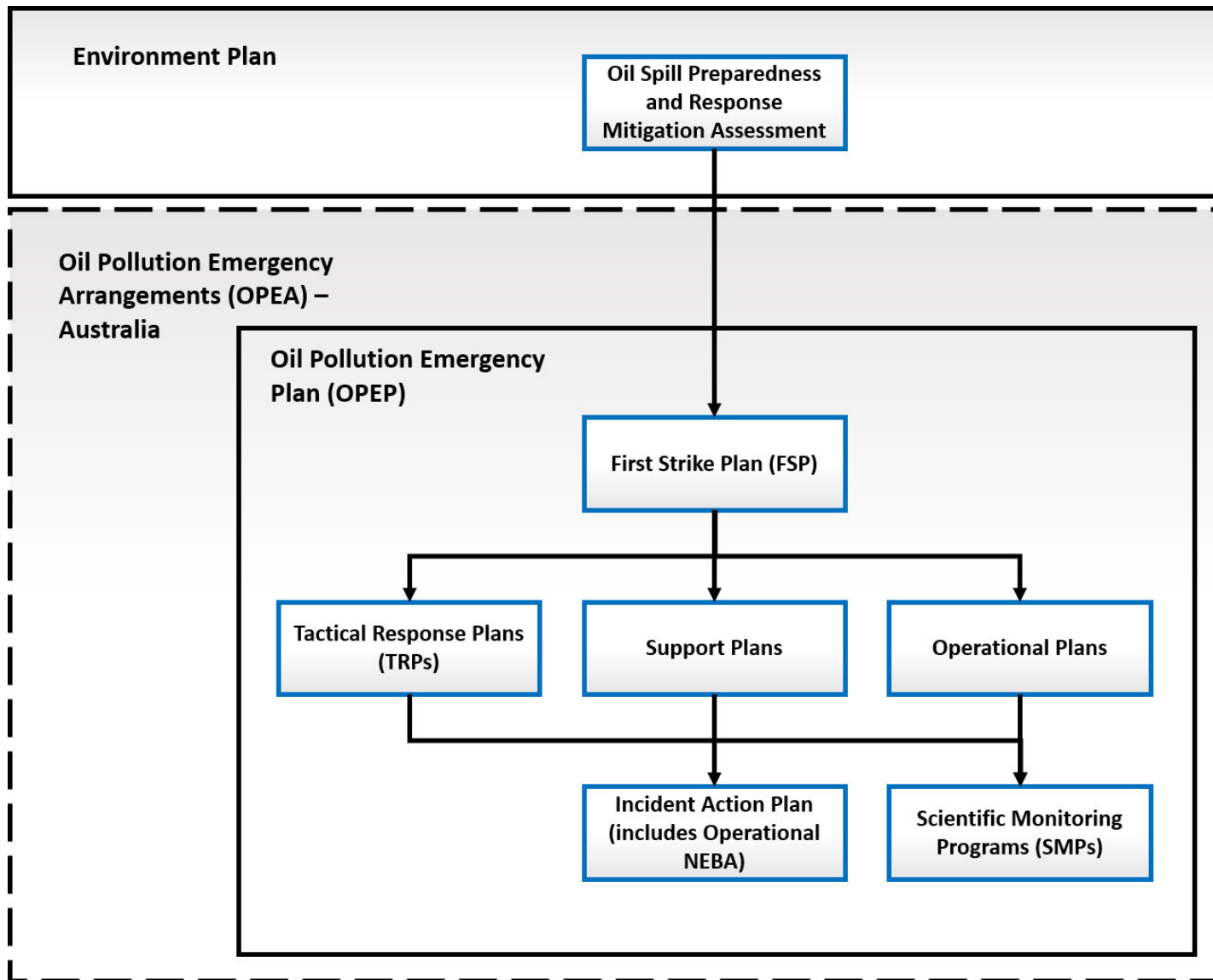


Figure 1-1: Woodside hydrocarbon spill document structure

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Table 1-1: Hydrocarbon Spill preparedness and response – document references

Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
NWS and Julimar Exploration Wellhead Decommissioning Environment Plan (EP)	Demonstrates that potential adverse impacts on the environment associated with the PAP (during both routine and non-routine operations) are mitigated and managed to As Low As Reasonably Practicable (ALARP) and will be of an acceptable level.	NOPSEMA Woodside internal	EP Section 4 (Identification and evaluation of environmental risks and impacts, including credible spill scenarios) EP Section 6 (Performance outcomes, standards and measurement criteria) EP Section 7 (Implementation strategy – including emergency preparedness and response, and Reporting and compliance)	
Oil Pollution Emergency Arrangements (OPEA) Australia	Describes the arrangements and processes adopted by Woodside when responding to a hydrocarbon spill from a petroleum activity.	Regulatory agencies Woodside internal	All	
Oil Spill Preparedness and Response Mitigation Assessment for the NWS and Julimar Exploration Wellhead Decommissioning Environment Plan (this document)	Evaluates response options to address the potential environmental impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the EP.	Regulatory agencies Corporate Incident Management Team (CIMT): Control function in an ongoing spill response for activity-specific response information.	All Performance outcomes, standards and measurement criteria related to hydrocarbon spill preparedness and response are included in this document.	
NWS and Julimar Exploration Wellhead Decommissioning	Facility specific document providing details and tasks required to mobilise a first strike response.	Site-based IMT for initial response, activation and notification. CIMT for initial response, activation and notification.	Initial notifications and reporting required within the first 24 hours of a spill event.	

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Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
Oil Pollution First Strike Plan (FSP)	<p>Primarily applied to the first 24 hours of a response until a full Incident Action Plan (IAP) specific to the event is developed.</p> <p>Oil Pollution First Strike Plans are intended to be the first document used to provide immediate guidance to the responding Incident Management Team (IMT).</p>	<p>CIMT: Control function in an ongoing spill response for activity-specific response information.</p>	<p>Relevant spill response options that could be initiated for mobilisation in the event of a spill.</p> <p>Recommended pre-planned tactics.</p> <p>Details and forms for use in immediate response. Activation process for oil spill trajectory modelling, aerial surveillance and oil spill tracking buoy details.</p>	
Operational Plans	<p>Lists the actions required to activate, mobilise and deploy personnel and resources to commence response operations.</p> <p>Includes details on access to equipment and personnel (available immediately) and steps to mobilise additional resources depending on the nature and scale of a release.</p> <p>Relevant operational plans will be initially selected based on the Oil Pollution First Strike Plan; additional operational plans will be activated depending on the nature and scale of the release.</p>	<p>CIMT: Operations and Logistics Sections for first strike activities.</p> <p>CIMT: Planning Section to help inform the IAP on resources available.</p>	<p>Locations from where resources may be mobilised.</p> <p>How resources will be mobilised.</p> <p>Details of where resources may be mobilised to and what facilities are required once the resources arrive.</p> <p>Details on how to implement resources to undertake a response.</p>	<p>Operational Monitoring</p> <p>Source Control via vessel</p> <p>Shipboard Oil Pollution Environment Plan (SOPEP)</p> <p>Oiled Wildlife Response</p> <p>Scientific Monitoring</p>

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Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
Tactical Response Plans	Provides options for response techniques in selected RPAs. Provides site, access and deployment information to support a response at the location.	CIMT: Planning Section to help develop IAPs, and Logistics Section to assist with determining resources required.	Indicative response techniques. Access requirements and/or permissions. Relevant information for undertaking a response at that site. Where applicable, may include equipment deployment locations and site layouts.	Modelling confirmed no shoreline impacts at response thresholds. Available tactical response plans are listed in ANNEX E: Tactical Response Plans.
Support Plans	Support Plans detail Woodside's approach to resourcing and the provision of services during a hydrocarbon spill response.	CIMT: Operations, Logistics and Planning Sections.	Technique for mobilising and managing additional resources outside of Woodside's immediate preparedness arrangements.	Logistics Support Plan Aviation Support Plan Marine Support Plan Accommodation & Catering Plan – Australia Transport Management Plan – Australia Waste Management Plan – Australia Health and Safety Support Plan Hydrocarbon Spill Responder Health Monitoring Guidelines People and Global Capability (Surge Labour Requirements) Support Plan (Land Based) Security Support Plan Stakeholder Engagement Support Plan

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Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
				Guidance for Hydrocarbon Spill Claims Management Communications Support Plan – Australia

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2 RESPONSE PLANNING PROCESS

This document details Woodside's process for identifying potential response options for the hydrocarbon release scenarios, identified in the EP. **Figure 2-1** outlines the interaction between Woodside's response, planning/ preparedness and selection process.

This structure has been used because it shows how the planning and preparedness activities inform a response and provides indicative guidance on what activities would be undertaken, in sequential order, if a real event were to occur. The process also evaluates alternative, additional and/or improved control measures specific to the PAP.

The NWS and Julimar Exploration Wellhead Decommissioning First Strike Plan then summarises the outcome of the response planning process and provides initial response guidance and a summary of ongoing response activities if an incident were to occur.

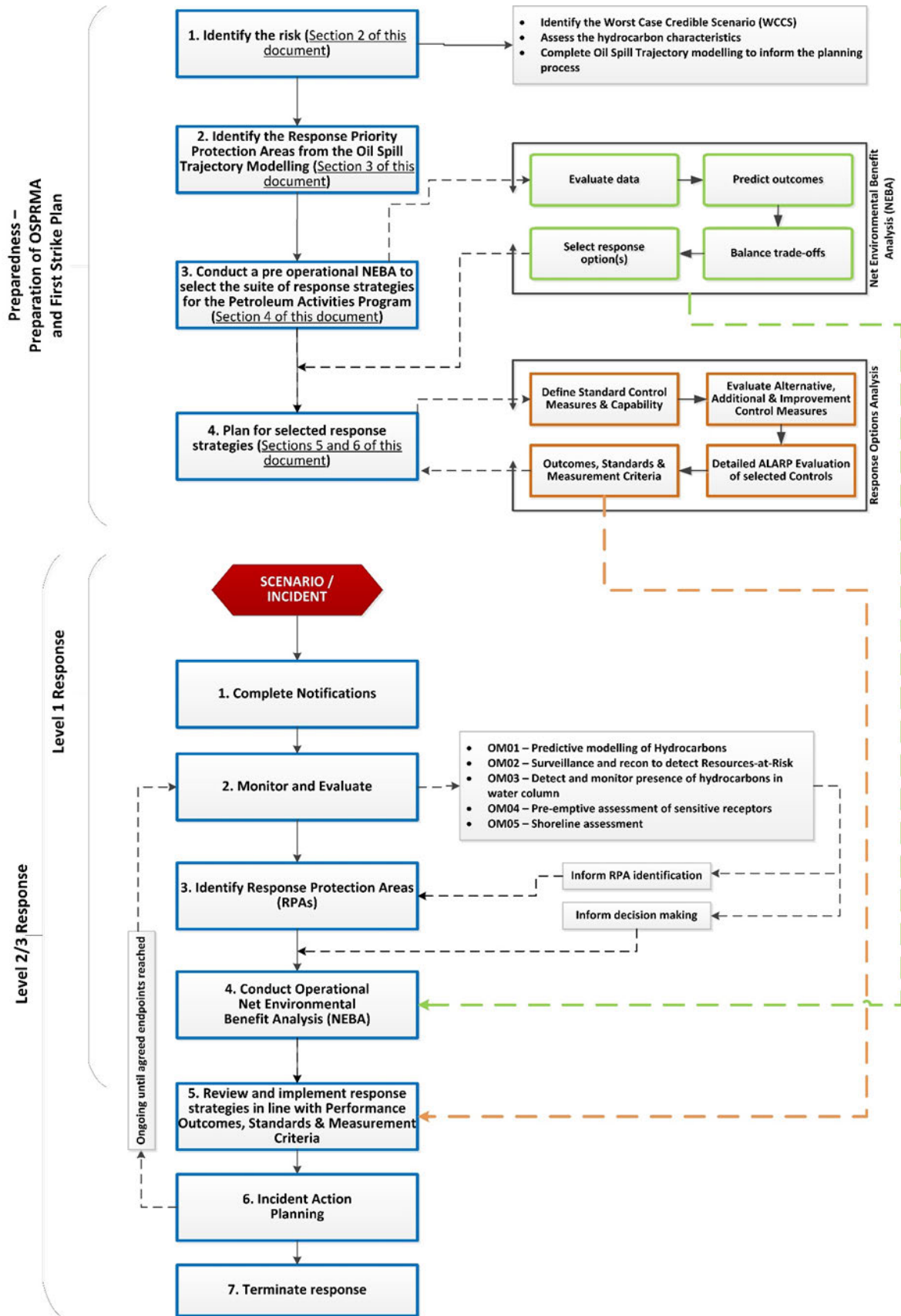


Figure 2-1: Response planning and selection process

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2.1 Response planning process outline

This document is expanded below to provide additional context on the key steps in determining capability, evaluating ALARP and hydrocarbon spill response requirements.

- Section 1. INTRODUCTION
- Section 2. RESPONSE PLANNING PROCESS
 - identification of worst-case credible scenario(s) (WCCS).
 - spill modelling for WCCS.
- Section 3. IDENTIFY RESPONSE PROTECTION AREAS (RPAs)
 - areas predicted to be contacted at concentration >100 g/m².
- Section 4. NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)
 - pre-operational NEBA (during planning/ALARP evaluation): this must be reviewed during the initial response to an incident to confirm its accuracy.
 - selected response techniques prioritised and carried forward for ALARP assessment.
- Section 5. HYDROCARBON SPILL ALARP PROCESS
 - determines the response need based on predicted consequence parameters.
 - details the environmental performance of the selected response options based on need.
 - sets the environmental performance outcomes, environmental performance standards and measurement criteria.
- Section 6. ALARP EVALUATION
 - evaluates alternative, additional, and improved options for each response technique to demonstrate the risk has been reduced to ALARP.
 - provides a detailed ALARP assessment of selected control measure options against:
 - predicted cost associated with implementing the option
 - predicted change to environmental benefit
 - predicted effectiveness / feasibility of the control measure.
- Section 7. ENVIRONMENTAL RISK ASSESSMENT OF SELECTED RESPONSE TECHNIQUES
 - evaluation of impacts and risks from implementing selected response options.
- Section 8. ALARP CONCLUSION
- Section 9. ACCEPTABILITY CONCLUSION

2.1.1 Response Planning Assumptions

Figure 2-2 illustrates the initial steps of a response to an oil spill event and, where available, the indicative timing. For the latter stages, the timing will be specific to the selective response option.

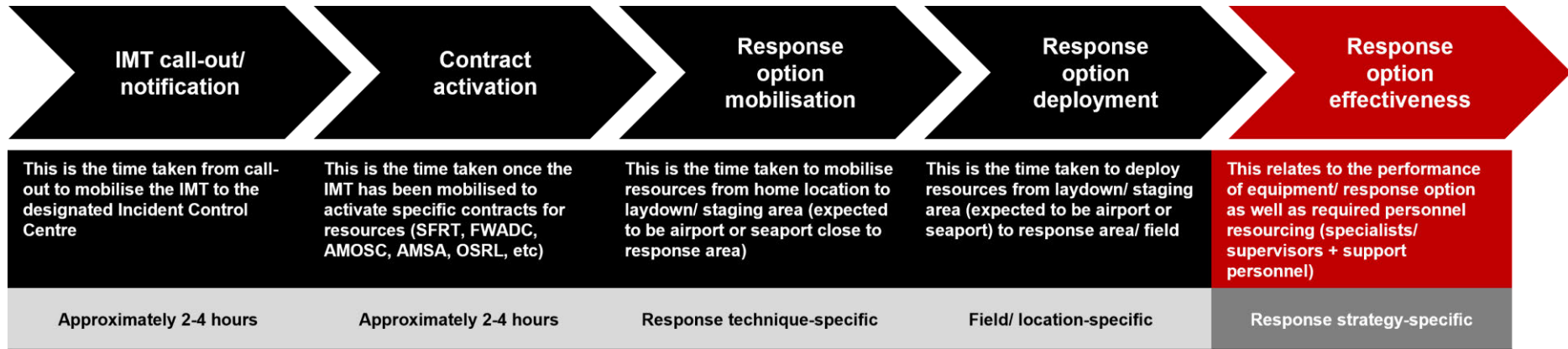


Figure 2-2: Response planning assumption – timing, resourcing and effectiveness

2.2 Environment plan risk assessment (credible spill scenarios)

Potential hydrocarbon release scenarios from the PAP have been identified during the risk assessment process (Section 7.7 of the EP). Further descriptions of risk, impacts and mitigation measures (which are not related to hydrocarbon preparedness and response) are provided in Section 7 of the EP. Three unplanned events or credible spill scenarios for the PAP have been selected as representative across types, sources and incident/response levels, up to and including the worst-case credible scenario (WCCS). The WCCS for the activity is then used for response planning purposes, as all other scenarios are of a lesser scale and extent. By demonstrating capability to manage the response to the WCCS, Woodside assumes other scenarios that are smaller in nature and scale can also be managed by the same capability. Response performance measures have been defined based on a response to the WCCS.

All wells have already been permanently plugged thus pose no spill risk for this the activity. Breach of project vessel fuel tanks due to a collision with a third-party vessel remains a credible spill risk however. Scenarios for a spill of 500 m³ MDO within the PAP area have been modelled at three wellhead locations closest to identified sensitive receptors as detailed below:

- CS-01 (NWS): NWS Angel-3 wellhead – closest wellhead to Glomar Shoals
- CS-02 (NWS): Nora-2 wellhead – closest wellhead to Rankin Bank
- CS-01 (Julimar): Julimar Balnaves Deep-1 wellhead – closest wellhead to Tryal Rocks and 47 km northwest of the Montebello Islands Group.

The spill at Julimar Balnaves Deep-1 (CS-01 (Julimar)) wellhead was selected as the Worst-Case Credible Scenario for response planning purposes as it resulted in floating hydrocarbons at 50 g/m², faster entrained contact at 100 ppb and the highest shoreline contact (7.8 g/m²).

Figure 2-3 presents the locations of the three scenarios.

Table 2-1: Petroleum Activities Program credible spill scenarios

Credible Spill Scenarios	Scenario selected for planning purposes	Scenario description	Maximum credible volume released (liquid m ³) ¹	Incident level	Hydrocarbon type	Residual proportion	Residual volume (m ³)
CS-01 (NWS)	No	Instantaneous release after a vessel collision at the Angel-3 wellhead	500 m ³	2	MDO	5.0%	25 m ³
CS-02 (NWS)	No	Instantaneous release after a vessel collision at the Nora-2 wellhead	500 m ³	2	MDO	5.0%	25 m ³
CS-01 (Julimar) (WCCS)	Yes	Instantaneous release after a vessel collision at the Balnaves Deep-1 wellhead	500 m ³	2	MDO	5.0%	25 m ³

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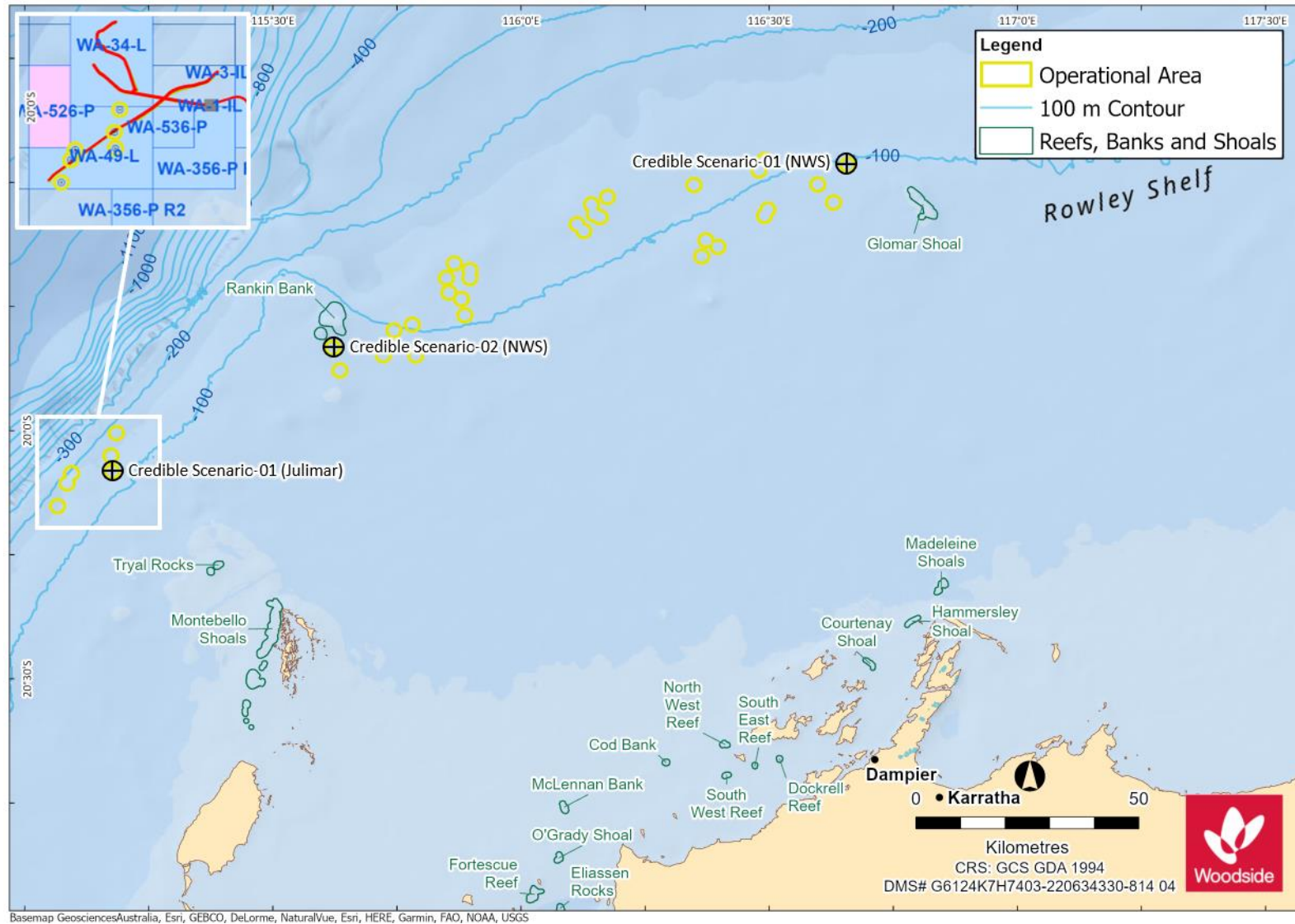


Figure 2-3: Location of Credible Scenario-01 (NWS), Credible Scenario-02 (NWS) and Credible Scenario-01 (Julimar)

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2.2.1 Hydrocarbon characteristics

Hydrocarbon characteristics, including modelled weathering data and ecotoxicity, are included in Section 7.7.2 of the EP.

Marine Diesel Oil

MDO is typically classed as an International Tanker Owners Federation (ITOPF) Group I/II oil. Group I/II oils are non-persistent and tend to dissipate completely through evaporation within a few hours and do not normally form emulsions.

MDO is a mixture of volatile and persistent hydrocarbons with low proportions of highly volatile and residual components. In general, about 6% of the oil mass should evaporate within the first 12 hours (BP < 180 °C); 35% should evaporate within the first 24 hours (180 °C < BP < 265 °C); and 54% should evaporate over several days (265 °C < BP < 380 °C). Approximately 5% of the oil is shown to be persistent. If released in the marine environment and in contact with the atmosphere (i.e. a surface spill), at the modelled sea temperature of 27°C and air temperature of 25°C (which are representative of the conditions in this region), it is predicted that approximately 41% by mass of this oil would evaporate over the first couple of days depending upon the prevailing conditions, with further evaporation slowing over time. The heavier (low volatility) components of the oil tend to entrain into the upper water column due to wind-generated waves but can subsequently resurface if wind-waves abate. Therefore, the heavier components of this oil can remain entrained or on the sea surface for an extended period, with associated potential for dissolution of the soluble aromatic fraction.

2.3 Hydrocarbon spill modelling

Oil spill trajectory modelling (OSTM) tools are used for environmental impact assessment and during response planning to understand spatial scale and timeframes for response operations. Woodside recognises there is a degree of uncertainty related to the use of modelling data and has subsequently utilised conservative approaches to volumes, weathering, spatial areas, timing and response effectiveness to scale capability to need.

The Oil Spill Model and Response System (OILMAP) and Integrated Oil Spill Impact Model System (SIMAP) models are both used for stochastic and deterministic trajectory modelling. They have been developed over three decades of planning, exercises, actual responses, several peer reviews, and validation studies. OILMAP was originally derived from the United States Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Type A model (French et al. 1996), for assessing marine transport, biological impact and economic damage that was also used under the United States Oil Pollution Act 1990 Natural Resource Damage Assessment (NRDA) regulations. Notable spills where the model has been used and validated against actual field observations include, Exxon Valdez (French McCay 2004), North Cape Oil Spill (French McCay 2003), along with an assessment of 20 other spills (French McCay and Rowe, 2004). In addition, test spills designed to verify fate, weathering and movement algorithms have been conducted regularly and in a range of climate conditions (French and Rines 1997; French et al. 1997; Payne et al. 2007; French McCay et al. 2007).

Further to this, the algorithms have been updated using the latest findings from the Macondo/Deepwater Horizon well blowout in the Gulf of Mexico and validated according to the Deepwater Horizon (DWH) oil spill in support of the NRDA (Spaulding et al. 2015; French McCay et al. 2015, 2016). Finally, the OILMAP and SIMAP models have been used extensively in Australia to prosecute pollution offences, predict discharge locations and likely spill volumes based on weathering and surveillance observations, and has been used as expert witness evidence in Australian court proceedings, aiding the prosecution to determine spill quantum estimates.

2.3.1 Stochastic modelling

A quantitative, stochastic assessment has been undertaken for the credible spill scenarios outlined in Table 2-1 to help assess the environmental consequences of a hydrocarbon spill.

Stochastic modelling was undertaken for a 500m³ surface release of MDO due to a third-party vessel collision at three locations within the PAP area as described in **Section 2.2**. The scenario at Julimar Balnaves Deep-1 wellhead (CS-01 (Julimar)) was then selected as the WCCS as it resulted in floating hydrocarbon at 50 g/m², faster entrained contact at 100 ppb and the highest shoreline contact (7.8 g/m²).

The results of the modelling can be used to demonstrate that a spill of the same volume within the same permit area, but closer to sensitive receptors, has an Environment that May Be Affected (EMBA) that is not predicted to include any surface slicks above threshold volumes entering WA state waters, or any shoreline contact or accumulation at response thresholds. Basing the impact assessment for a vessel collision scenario on this modelling is considered reasonable as it reflects a worst-case scenario and still does not predict impacts above response thresholds.

For the modelled scenarios, a total of 200 replicate simulations were run over an annual period to test for trends and variations in the trajectory and weathering of the spilled oil, with an equal number of replicates completed using samples of metocean data that commenced within each calendar quarter (50 simulations per quarter). Further details relating to the assessments for the scenarios can be found in Section 7.7.2 of the EP. Environmental impact thresholds – EMBA and hydrocarbon exposure.

The outputs of the stochastic spill modelling are used to assess the potential environmental impact from the credible scenario. The stochastic modelling results are used to delineate areas of the marine and shoreline environment that could be exposed to hydrocarbon levels exceeding environmental impact threshold concentrations. The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations modelled is defined as the EMBA and is discussed further in Section 5 of the EP. As the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean mechanism of transportation, a different EMBA is presented for each fate within the EP.

A conservative approach – adopting accepted contact thresholds for impacts on the marine environment – is used to define the EMBA. These hydrocarbon thresholds are presented in Table 2-2 and described in Section 7.7.2 of the EP.

2.3.1.1 Environmental impact thresholds – Environment that May Be Affected (EMBA) and hydrocarbon exposure

The outputs of the stochastic spill modelling are used to assess the potential environmental impact from the credible scenarios. The stochastic modelling results are used to delineate areas of the marine and shoreline environment that could be exposed to hydrocarbon levels exceeding environmental impact threshold concentrations. The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations modelled is defined as the EMBA and is discussed further in Section 6 of the EP. As the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean mechanism of transportation, a different EMBA is presented for each fate within the EP.

A conservative approach – adopting accepted accumulation thresholds for impacts on the marine environment – is used to define the EMBA. These hydrocarbon thresholds are presented in Table 2-2 below and described in Section 6 of the EP.

Table 2-2: Summary of thresholds applied to the stochastic hydrocarbon spill modelling to determine the EMBA and environmental impacts

Hydrocarbon	Surface hydrocarbon (g/m ²)	Dissolved hydrocarbon (ppb)	Entrained hydrocarbon (ppb)	Accumulated hydrocarbon (g/m ²)
Diesel	10	50	100	100

2.3.2 Deterministic modelling

Deterministic modelling is undertaken where initial stochastic modelling has indicated that floating oil is present at an impact threshold of 50 g/m² and/or where there are shoreline accumulations at an impact threshold of 100 g/m². The deterministic modelling outputs are then used to scale the required capability for the offshore (containment and recovery and dispersant) and/or shoreline responses.

Whilst modelling for this activity predicts that there may be some floating hydrocarbons present at the 50 g/m² threshold at Montebello Marine Park and in open waters (up to 26 km from the spill location), offshore response techniques (dispersant application and containment and recovery) are not deemed feasible response techniques for spills of MDO. Furthermore, the stochastic modelling undertaken does not predict any shoreline contact at response thresholds. Deterministic modelling was therefore not undertaken and stochastic modelling has been used to scale the response.

2.3.3 Response planning thresholds for surface and shoreline hydrocarbon exposure

Thresholds to determine the EMBA are used to predict and assess environmental impacts and inform the Scientific Monitoring Program (SMP), however they do not appropriately represent the thresholds at which an effective response can be implemented. Additional response thresholds are used for response planning and to determine areas where response techniques would be most effective. The deterministic modelling is then used to assess the nature and scale of a response.

In the event of an actual response, existing deterministic modelling would be reviewed for suitability and additional modelling would be conducted using real-time data and field information to inform CIMT decisions.

The deterministic spill modelling outputs are presented at response planning thresholds for surface hydrocarbons for the WCCS. Surface spill concentrations are expressed as grams per square metre (g/m²) (Section 2.2). The thresholds used are derived from oil spill response planning literature and industry guidance and are summarised below.

2.3.3.1 Surface hydrocarbon concentrations

Table 2-3: Surface hydrocarbon thresholds for response planning

Surface hydrocarbon threshold (g/m ²)	Description	Bonn Agreement Oil Appearance Code	Mass per area (m ³ /km ²)
>10	Predicted minimum threshold for commencing operational monitoring ³	Code 3 – Dull metallic colours	5 to 50
50	Predicted minimum floating oil threshold for containment and	Code 4 – Discontinuous true oil colour	50 to 200

³ Operational monitoring will be undertaken from the outset of a spill whether or not this threshold has been reached. Monitoring is needed throughout the response to assess the nature of the spill, track its location and inform the need for any additional monitoring and/or response techniques. It also informs when the spill has entered State Waters and control of the incident passes to statutory authorities e.g. Western Australia Department of Transport (WA DoT) or AMSA.

Surface hydrocarbon threshold (g/m ²)	Description	Bonn Agreement Oil Appearance Code	Mass per area (m ³ /km ²)
	recovery and surface dispersant application ⁴		
100	Predicted optimum floating oil threshold for containment and recovery and surface dispersant application	Code 5 – Continuous true oil colour	>200
Shoreline hydrocarbon threshold (g/m ²)	Description	National Plan Guidance on Oil Contaminated Foreshores	Mass per area (m ³ /km ²)
100	Predicted minimum shoreline accumulation threshold for shoreline assessment operations	Stain	>100
250	Predicted minimum threshold for commencing shoreline clean-up operations	Level 3 – Thin Coating	200 to 1000

The surface thickness of oil at which dispersants are typically effective is approximately 100 g/m². However, substantial variations occur in the thickness of the oil within the slick, and most fresh crude oils spread within a few hours, so overall the average thickness is 0.1 mm (or approx. 100 g/m²) (International Tanker Owners Pollution Federation [ITOPF] 2011). Additionally, the recommended rate of application for surface dispersant is typically 1-part dispersant to 20 or 25 parts of spilled oil. These figures assume a 0.1 mm slick thickness, averaged over the thickest part of the spill, to calculate a litres/hectare application rate from vessels and aircraft. In practice this can be difficult to achieve as it is not possible to accurately assess the thickness of the floating oil.

Some degree of localised over-dosage and under-dosage is inevitable in dispersant response. An average oil layer thickness of 0.1 mm is often assumed, although the actual thickness can vary over a wide range (from less than 0.0001 mm to more than 1 mm) over short distances (International Petroleum Industry Environment Conservation Association [IPIECA] 2015).

Guidance from the Australian Maritime Safety Authority (AMSA, 2015) indicates spreading of spills of Group II or III products will rapidly decrease slick thickness over the first 24 hours of a spill resulting in the potential requirement of up to a ten (10) fold increase in capability on day 2 to achieve the same level of performance.

Further guidance from the European Maritime Safety Authority (EMSA) states spraying the ‘metallic’ looking area of an oil slick (Bonn Agreement Oil Appearance Code [BAOAC] 3, approx. 5 – 50 µm) with dispersant from spraying gear designed to treat an oil layer 0.1 mm (100 µm) thick, will inevitably cause dispersant over-treatment by a factor of 2 to 20 times (EMSA 2012).

Therefore, dispersant application should be concentrated on the thickest areas of an oil slick and Woodside intends on applying surface dispersants to only BAOAC 4 and 5. Spraying areas of oil designated as BAOAC Code 4 (Discontinuous true oil colour) with dispersant will, on average, deliver approximately the recommended treatment rate of dispersant.

Spraying areas of oil designated as BAOAC Code 5 with dispersant (Continuous true oil colour and more than 0.2 mm thick) will, on average, deliver approximately half the recommended treatment

⁴ At 50 g/m², containment and recovery and surface dispersant application operations are not expected to be particularly effective. This threshold represents a conservative approach to planning response capability and containing the spread of surface oil.

rate of dispersant. Repeated application of these areas of thicker oil, or increased dosage ratios, will be required to achieve the recommended treatment rate of dispersant (EMSA 2012).

Guidance from NOAA in the United States is found in the document: *Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments 2013* (NOAA 2013). This guide outlines advice for response planning across all common techniques, including surface dispersant spraying and containment and recovery. It states oil thickness can vary by orders of magnitude within distinct areas of a slick, thus the actual slick thickness and oil distribution of target areas are crucial for determining response method feasibility. Further to this, ITOPF also states in terms of oil spill response, sheen can be disregarded as it represents a negligible quantity of oil, cannot be recovered or otherwise dealt with to a significant degree by existing response techniques, and is likely to dissipate readily and naturally (ITOPF, 2014).

Figure 2-4 below from AMSA’s Identification of Oil on Water – Aerial Observation and Identification Guide (AMSA, 2014) shows expected percent coverage of surface hydrocarbons as a proportion of total surface area. Wind-rows, heavy oil patches and tar balls, for example, must be considered, as they influence oil encounter rates, chemical dosages and ignition potential. Each method has different thickness thresholds for effective response.

From this information and other relevant sources (Allen and Dale, 1996, EMSA, 2012, Spence, 2018) the surface threshold of 50 g/m² was chosen as an average/equilibrium thickness for offshore response operations (50 g/m² is an average of 50% coverage of 0.1 mm Bonn Agreement Code 4 – discontinuous true oil colour, or 25% coverage of 0.2 mm Bonn Agreement Code 5 – continuous true oil colour which would represent small patches of thick oil or wind-rows).

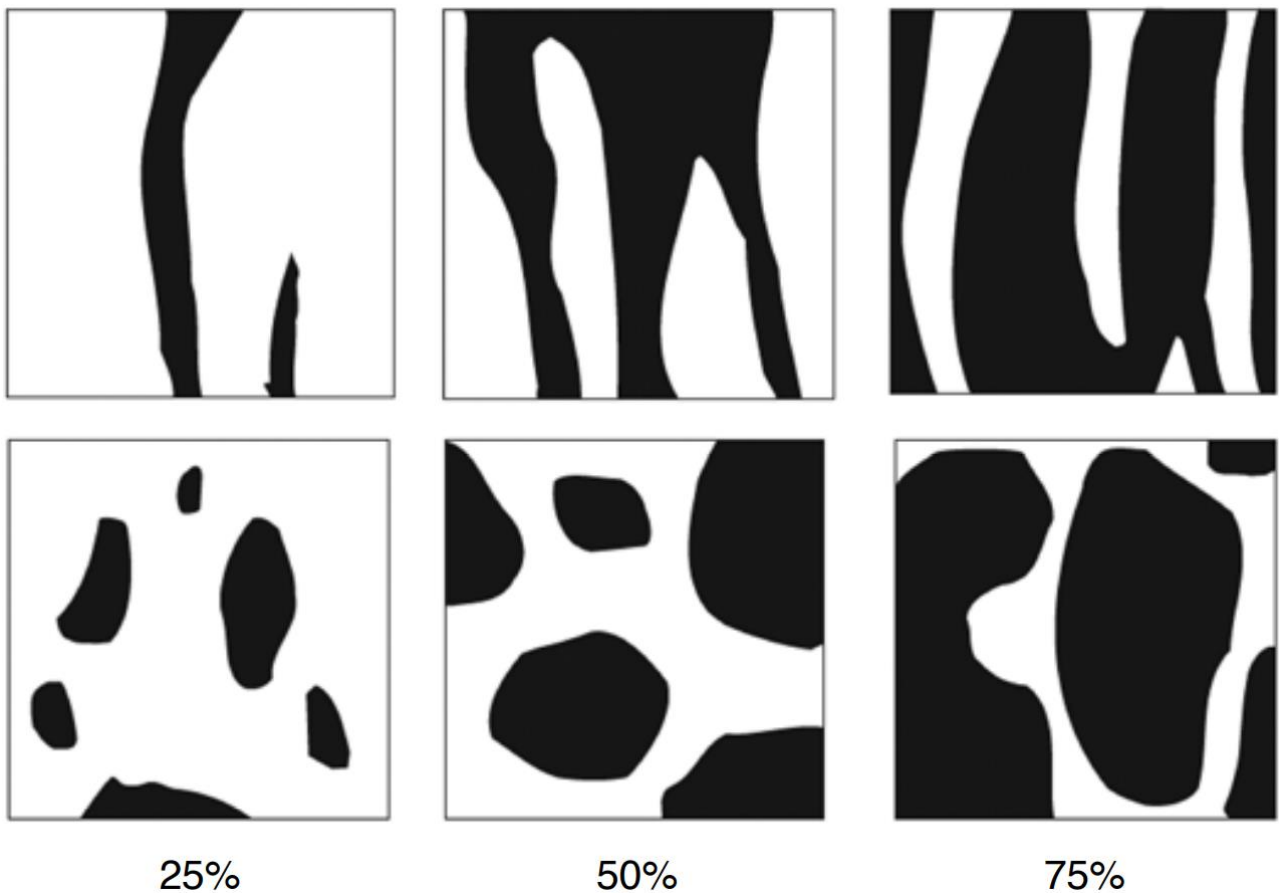


Figure 2-4: Proportion of total area coverage (AMSA, 2014)

Figure 2-5 illustrates the general relationships between on-water response techniques and slick thickness. Wind-rows, heavy oil patches and tar balls, for example, must be considered, as they

influence oil encounter rates, chemical dosages and ignition potential. Each method has different thickness thresholds for effective response.

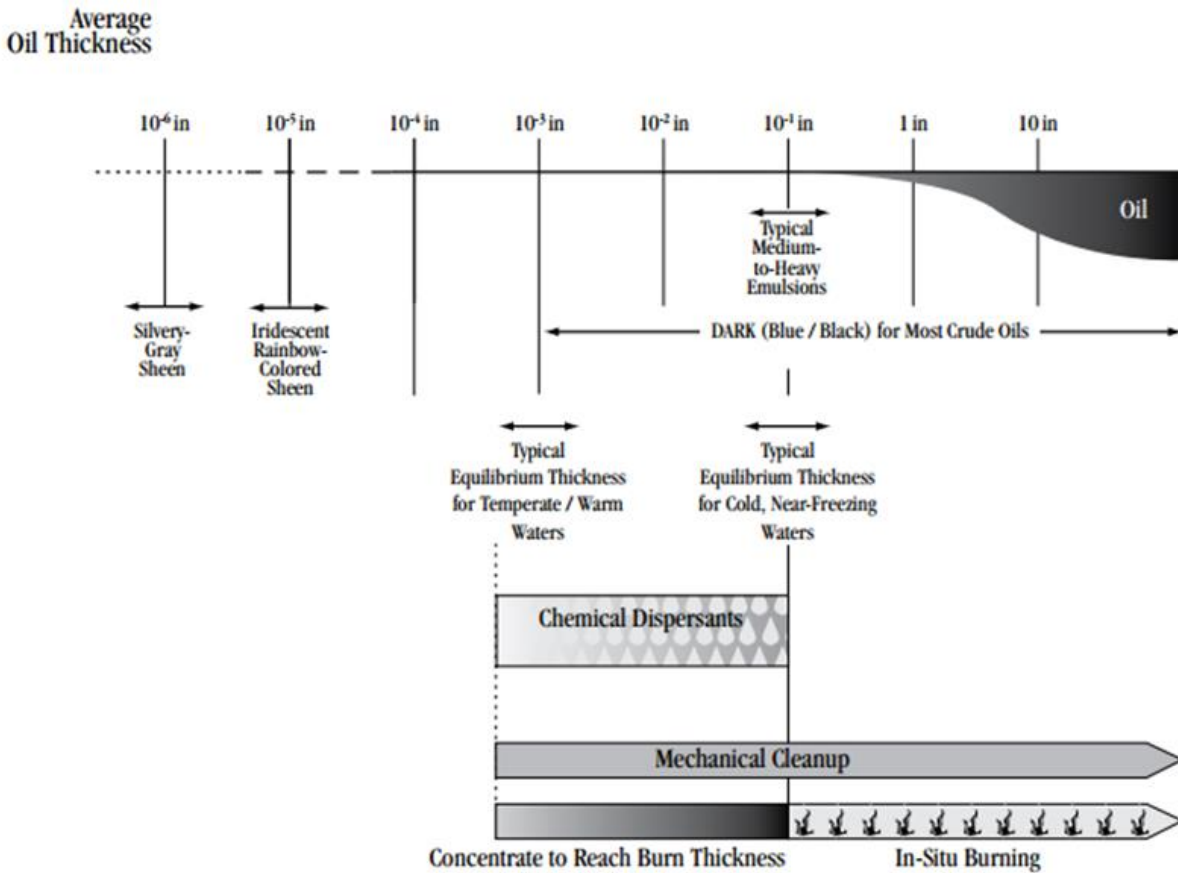


Figure 2-5: Oil thickness versus potential response options (from Allen & Dale 1996)

Wind and waves influence the feasibility of mechanical clean-up operations, dropping the effectiveness significantly because of entrainment and/or splash-over as short period waves develop beyond two to three feet (0.6 to 0.9 m) in height. Waves and wind can also be limiting factors for the safe operation of vessels and aircraft.

2.3.3.2 Surface hydrocarbon viscosity

Table 2-4: Surface hydrocarbon viscosity thresholds

Surface viscosity threshold (cSt)	Description	European Maritime Safety Authority (EMSA)	Viscosity at sea temperature (cSt)
5,000*	Predicted optimum viscosity for surface dispersant operations	Generally possible to disperse	500-5,000
15,000*	Predicted maximum viscosity for effective surface dispersant operations	Sometimes possible to disperse	5,000-15,000

*Measured at sea surface temperature

Further to the required thickness for surface dispersant application and containment and recovery to be deployed effectively as outlined above, changes to viscosity will also limit the treatment of offshore response techniques. As outlined in the EMSA Manual on the Applicability of Oil Spill Dispersants (EMSA, 2012), guidance around changes to viscosity and likely effectiveness of surface dispersant application is provided.

This includes the following statements: “It has been known for many years that it is more difficult to disperse a high viscosity oil than a low or medium viscosity oil. Laboratory testing had shown that the effectiveness of dispersants is related to oil viscosity, being highest for modern ‘Concentrate, UK Type 2/3’ dispersants at an oil viscosity of about 1,000 or 2,000 mPa (1,000 – 2,000 cSt) and then declining to a low level with an oil viscosity of 15,000 mPa (15,000 cSt). It was considered that some generally applicable viscosity limit, such as 2,000 or 5,000 mPa (2,000 – 5,000 cSt), could be applied to all oils.”

However, modern oil spill dispersants are generally effective up to an oil viscosity of 5,000 mPa (5,000 cSt) or more, and their performance gradually decreases with increasing viscosity; oils with a viscosity of more than 15,000 cSt are in most cases, no longer dispersible. Guidance from CEDRE (EMSA, 2012) also indicates products with a range of 500 – 5,000 cSt at sea temperature are generally possible to disperse, while 5,000 – 15,000 cSt at sea temperature above pour point are sometimes possible to disperse, with products beyond 15,000 cSt at sea temperature below pour point are generally impossible to disperse.

To support decision making and response planning, a threshold of 15,000 cSt at sea temperature was chosen as a conservative estimate of maximum viscosity for surface dispersant spraying operations.

The MDO spill scenarios will not reach the 15,000 cSt threshold for the duration of the spills.

2.3.4 Spill modelling results

Details of the scenario and modelling inputs are included along with stochastic results in **Table 2-5**.

Table 2-5: Worst case credible scenario modelling results

Scenario description	Results
	CS-01 (Julimar)
WCCS – total volume released Refer to Section 2.1.1 for detailed hydrocarbon characteristics	Hydrocarbon release caused by a vessel collision Instantaneous surface release of 500 m ³ of MDO
WCCS – residual volume remaining post-weathering	5% residual component, 25 m ³ of MDO
Location	Lat: 20° 4' 58.213" S, Long: 115° 10' 34.192" E
Stochastic modelling results	
Minimum time to floating hydrocarbon contact with the offshore edge(s) of any shoreline receptor polygon (at a concentration of 10 g/m²)	Montebello Australia Marine Park (AMP) (open ocean location) is predicted to be contacted by floating hydrocarbons at 10 g/m ² within 13 hours and at 50 g/m ² within 17 hours. Floating hydrocarbons at 10 g/m ² is predicted in open waters up to 47 km south from spill location (annualised).
Minimum time to commencement of hydrocarbon accumulation at any shoreline receptor (at a concentration of 100 g/m²)	NA – no shoreline accumulation predicted at or above 100 g/m ² under any credible spill scenario. Maximum is 7.8 g/m ² (probability <0.5%).
Maximum cumulative hydrocarbon volume accumulated at any individual shoreline receptor (at a concentration of 100 g/m²).	NA – no shoreline accumulation at any RPA predicted at or above 100 g/m ² under any credible spill scenario. Maximum is 7.8 g/m ² (probability <0.5%).
Maximum cumulative hydrocarbon volume accumulated across all shoreline receptors contacted by accumulated hydrocarbons (at a concentration of 100 g/m²)	NA – no shoreline accumulation predicted at or above 100 g/m ² under any credible spill scenario. Maximum is 7.8 g/m ² (probability <0.5%).
Minimum time to entrained/dissolved hydrocarbon contact with the offshore edges of any receptor polygon (at a threshold of 100 ppb)	6 hours until Montebello AMP is contacted above 100 ppb.

From analysis of the results, modelling predicts the following:

Whilst CS-01 (Julimar) results in some surface hydrocarbon at the 50 g/m² threshold within 17 hours at Montebello AMP (open ocean location) and in open ocean, the use of surface dispersant and containment and recovery are not deemed feasible for MDO spills due to rapid spreading and weathering as a result of the local metocean conditions, together with its highly volatile nature. The use of dispersant would unnecessarily add chemicals to the marine environment. Furthermore, the volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of fresh hydrocarbon.

Whilst mechanical dispersion may assist the dissipation of light hydrocarbons it is unlikely to provide any additional benefit over the natural wind and wave action typically observed in the offshore environment. Furthermore, the volatility of MDO will make the vicinity of the spill unsafe for response personnel, and the use of vessels within a surface slick will contaminate the vessel and may cause secondary contamination as the vessel transits through unaffected areas.

Maximum shoreline contact predicted is 7.8 g/m² (Barrow and Boodie Island) which is significantly lower than feasible response thresholds of >100 g/m².

Modelling predicts entrained contact at Montebello AMP within 6 hours. Entrained oil is not used to scale response planning as it cannot be recovered from the water column, however, may be used to inform the spatial scale of the Scientific Monitoring Program (SMP).

Response operations cannot be implemented if the safety of response personnel cannot be guaranteed. Safety circumstances that limit the execution of this control measure include volatile concentrations of hydrocarbons in the atmosphere, high winds (> 20 knots), waves and/or sea states (> 1.5 m waves) and high ambient temperatures.

3 IDENTIFY RESPONSE PROTECTION AREAS (RPAs)

In a response, operational monitoring programs – including trajectory modelling and vessel/aerial observations – would be used to predict RPAs that may be impacted. For the purposes of planning and appropriately scaling a response, modelling has been used to identify RPAs as outlined below in **Figure 3-1**.

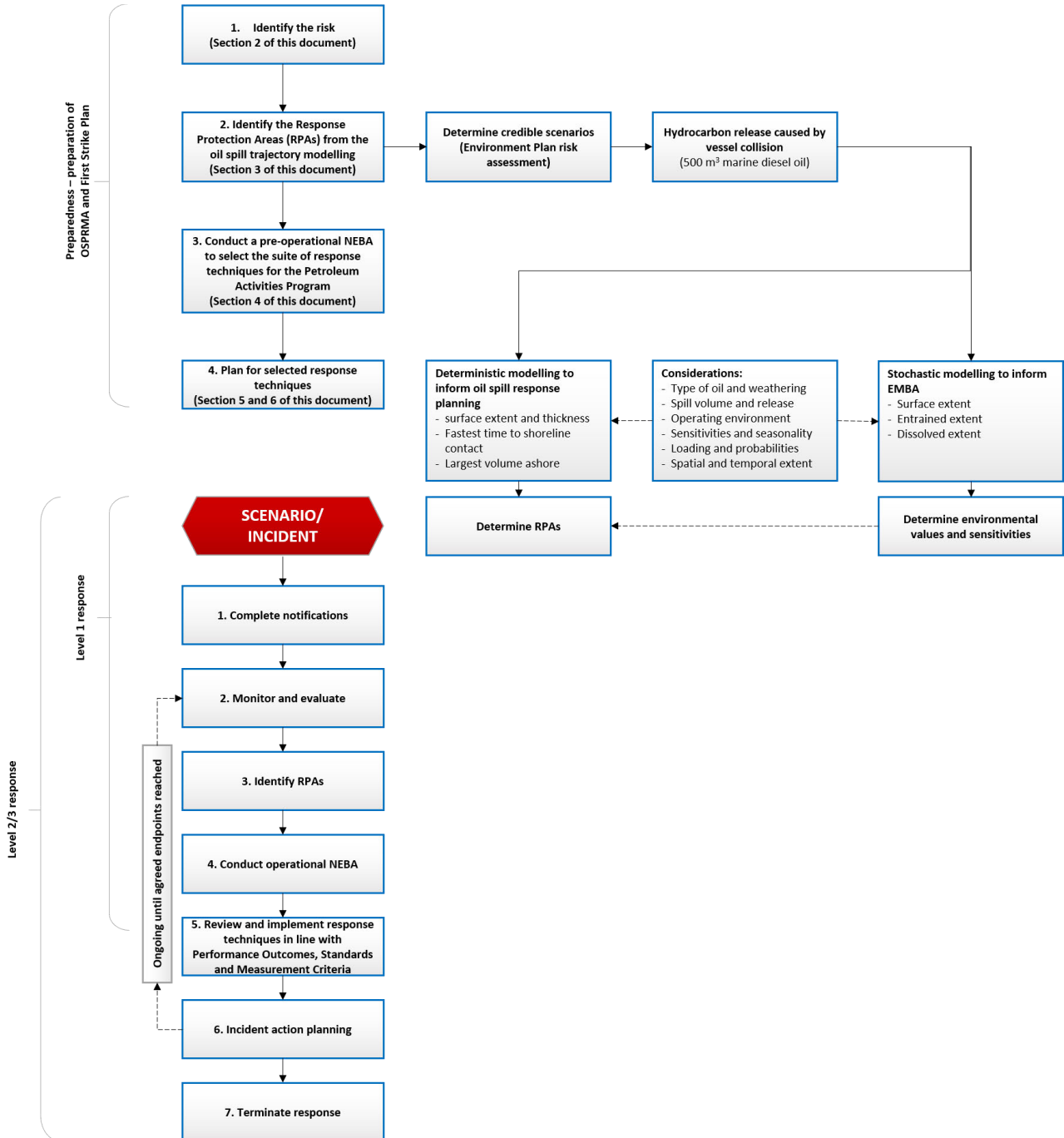


Figure 3-1: Identify Response Protection Areas (RPAs) flowchart

3.1 Identified sensitive receptor locations

Section 4 of the EP includes the list of sensitive receptor locations that have been identified by stochastic modelling as meeting the requirements outlined below:

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- receptors with the potential to incur surface, entrained or shoreline accumulation contact above environmental impact thresholds
- receptors within the EMBA which meet the following:
 - a number of priority protection criteria/categories
 - International Union of Conservation of Nature IUCN marine protected area categories
 - high conservation value habitat and species
 - important socio-economic/heritage value.

3.2 Identify Response Protection Areas (RPAs)

Response Protection Areas (RPAs) are selected on the basis of their environmental (ecological, social, economic, cultural and heritage) values and sensitivities and considering the minimum response thresholds (detailed in Section 2.3.3.1) together with the ability to conduct a response.

Based on the stochastic modelling selected for this activity, floating hydrocarbons above 50 g/m² are predicted within 17 hours at Montebello AMP (open ocean location) and in open ocean up to 26 km from the spill location. No shoreline accumulation above 100 g/m² is expected and therefore no shoreline RPAs selected for this activity. The worst-case concentration of accumulated hydrocarbons is predicted to be 7.8 g/m² at Barrow and Boodie Island.

Therefore, no RPAs are defined for this activity. Operational monitoring will, however, be undertaken from the outset of a spill to assess the nature of the spill, track its location and inform the need for any additional monitoring and/or response techniques. It will also inform if or when the spill enters State Waters and/or control of the incident passes to statutory authorities e.g. WA DoT or AMSA. If operational monitoring does identify RPAs at risk of impact during a real spill event, TRPs for a shoreline response will be drafted in advance for any RPAs with a contact time of <14 days.

Sensitive receptors are presented in the existing environment description and impact assessment section of the EP (Section 5 and Section 7 respectively) for the spill scenarios. The pre-operational NEBA (Section 0) considers the results from the stochastic modelling so all feasible response techniques are considered in the planning phase.

4 NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)

A Net Environmental Benefit Analysis (NEBA) is a structured process to consider which response techniques are likely to provide the greatest net environmental benefit.

The NEBA process typically involves four key steps outlined in Figure 4-1: evaluate data, predict outcomes, balance trade-offs, and select response options. These steps are followed in the planning/preparedness process and would also be followed in a response.

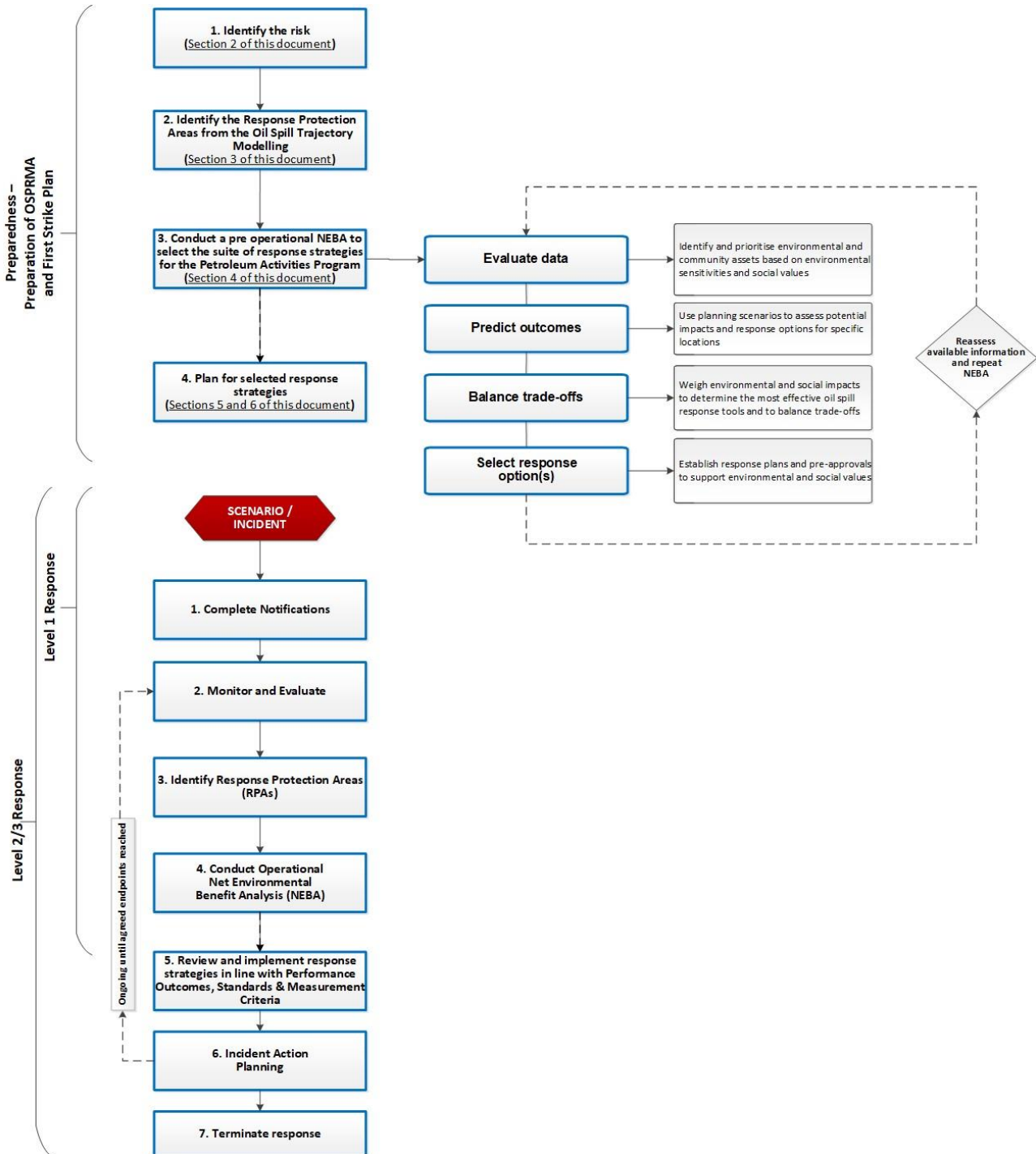


Figure 4-1: Net Environmental Benefit Analysis (NEBA) flowchart

4.1 Pre-operational / Strategic NEBA

The pre-operational NEBA identifies positive and negative impacts to sensitive receptors from implementing the response techniques. Feasibility is considered by assessing the receptors potentially impacted above response thresholds (Section 2.3.3) and the surface concentrations (Section 2.3.3.1) from the modelling.

Completing a pre-operational NEBA is a key response planning control that reduces the environmental risks and impacts of implementing the selected response techniques. Comprehensive details of the pre-operational NEBA for this PAP are contained in Stage 1: Evaluate data.

Woodside identifies and prioritises environmental and community assets based on environmental sensitivities and social values, informed through the use of trajectory modelling. Interpretation of stochastic oil spill modelling determines the EMBA for the release, which defines the spatial area that may be potentially impacted by the PAP activities.

4.1.1 Define the scenario(s)

Woodside uses scenarios identified from the risk assessment in the EP to assess potential impacts and response options for specific locations. The WCCS is then selected for deterministic modelling and is used for this pre-operational NEBA. Outlier locations with potential environmental impacts, selected from the stochastic modelling may also be included for assessment. Response thresholds and deterministic modelling are then used to assess the feasibility/effectiveness and scale of the response. Modelling results are available in **Table 2-5** and **Section 3**.

4.2 Stage 2: Predict Outcomes

Woodside uses planning scenarios to assess potential impacts and response options for specific locations. Locations with potential environmental impacts, selected from the stochastic modelling are included for assessment. Response thresholds and deterministic modelling are then used to assess the feasibility/ effectiveness of a response.

4.3 Stage 3: Balance trade-offs

Woodside considers environmental impacts and response effectiveness/ feasibility to determine the most effective oil spill response tools and balance trade-offs, using an automated NEBA tool. The tool considers potential benefits and impacts associated with a response at sensitive receptors and then considers the effectiveness/ feasibility of the response to select the response techniques carried forward to the ALARP assessment. The NEBA can be found in **ANNEX A: Net Environmental Benefit Analysis** detailed outcomes.

4.4 Stage 4: Select Best Response Options

To select the response technique, all the other stages in the NEBA process are considered and used to establish response plans and any pre-approvals to support protection of identified environmental and social values.

The response techniques implemented may vary according to a particular spill. The hydrocarbon type released and the sensitivities of the receptors (both ecological and socio-economic) may influence the response. The pre-operational NEBA broadly evaluates each response technique and supports decisions on whether they are feasible and of net environmental benefit. Response techniques that are not feasible or beneficial are rejected at this stage and not progressed to planning.

Further risks and impacts from implementing these selected response options are outlined in Section.

4.4.1 Determining potential response options

The available response techniques based on current technology can be summarised under the following headings:

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- Operational monitoring
- Source control via vessel SOPEP
- Surface dispersant application:
 - aerial dispersant application
 - vessel dispersant application
- Mechanical dispersion
- In-situ burning
- Containment and recovery
- Shoreline protection and deflection:
 - protection
 - deflection
- Shoreline clean-up:
 - Phase 1 – mechanical clean-up
 - Phase 2 – manual clean-up
 - Phase 3 – final polishing
- Oiled wildlife response (including hazing)

Support functions may include:

- Waste management
- Post spill/ scientific monitoring

Table 4-1 includes scenario-specific assessments of feasible response options and justification for the exclusion of inappropriate options. These options are evaluated against the scenario parameters including oil type, volume, characteristics, prevailing weather conditions, logistical support, and resource availability to determine deployment feasibility.

A shortlist of the feasible response options is then carried forward for the ALARP assessment. This assessment will typically result in a range of available options, that are deployed at different areas (at-source, offshore, nearshore and onshore) and different times during the response. The NEBA process assists in prioritising which options to use where and when, and timings throughout the response.

Table 4-1: Response technique evaluation – loss of MDO as a result of vessel collision (CS-01 (Julimar))

Response Technique	Effectiveness	Feasibility	Decision	Rationale for the decision
Hydrocarbon: MDO				
Monitor and Evaluate	<p>Will be effective in tracking the location of the spill, informing if/when it has entered State Waters, predicting potential impacts and triggering further monitoring and response techniques as required. Monitoring techniques include:</p> <ul style="list-style-type: none"> OM01 Predictive modelling of hydrocarbons to assess resources at risk – used throughout spill. ‘Ground-truthed’ using the outputs of all other monitoring techniques; OM02 Surveillance and reconnaissance to detect hydrocarbons and resources at risk – from outset of spill; OM03 Monitoring of hydrocarbon presence, properties, behaviour and weathering in water – from outset of spill; OM04 Pre-emptive assessment of sensitive receptors at risk – triggered once OM01, OM02 and OM03 inform likely RPAs at risk; and OM05 Shoreline assessment – once OM02, OM03 and OM04 inform which RPAs have been impacted. 	<p>Monitoring of a MDO spill is a feasible response technique and outputs will be used to guide decision making on the use of other monitoring/response techniques and whether the spill passes into State Waters and thus control of the incident moves to WA DoT.</p> <p>Monitoring of a MDO spill is a feasible response technique and outputs will be used to guide decision making on the use of other monitoring/response techniques and providing information to regulatory agencies.</p> <p>Practicable techniques that could be used for this scenario include OM01, OM02 and OM03. Modelling does not predict impact of any shoreline receptors at threshold, however, OM04 and OM05 would be utilised if any sensitive shoreline receptors are deemed to be at risk of impact.</p>	Yes	<p>Monitoring and Evaluation is an essential element of oil spill response and will be necessary to:</p> <ul style="list-style-type: none"> validate trajectory and weathering models determine the behaviour of the diesel in the water determine the location and state of the slick provide forecasts of spill trajectory determine whether the diesel is dispersing naturally or not determine appropriate response techniques determine effectiveness of response techniques confirm impact pathways to receptors <p>Monitoring will be used to confirm if/when the spill crosses into State Waters and thus control of the spill passes to WA DoT.</p>
Source Control via Vessel SOPEP	Controlling the spill of diesel at source would be the most effective way to limit the quantity of hydrocarbon entering the marine environment.	A spill of diesel from a vessel collision is likely to be instantaneous and source control will be limited to what the vessel or facility can safely achieve to prevent further spillage whilst responding to the incident.	Yes	Ability to stop the spill at source will be dependent upon the specific spill circumstances and vessel configuration, and whether or not it is safe for response personnel to access/isolate the source of the spill.
Surface Dispersant Application	<p>Application of surface dispersant would likely reduce the volumes of hydrocarbons contacting sensitive surface receptors.</p> <p>Dispersant can also enhance biodegradation and may reduce VOCs in some circumstances therefore reducing potential health and safety risk to responders.</p> <p>Dispersant can increase dispersed/entrained hydrocarbons which can potentially have higher toxicity to biota in shallow water than naturally dispersed hydrocarbons.</p> <p>Subsurface oil plume likely to increase in size resulting in greater spatial extent of entrained oil.</p> <p>Entrained oil could potentially impact on sensitive shallow water receptors e.g. corals, which otherwise may have been unaffected.</p>	<p>Whilst modelling of a 500 m³ spill of MDO for this activity predicts that there may be some hydrocarbons present at the 50 g/m² threshold at Montebello AMP and in open waters (up to 26 km south from the spill location), surface dispersant application is not deemed to be a feasible response technique for spills of MDO as dispersant droplets tend to pass through the thin surface films without binding to the hydrocarbon.</p> <p>Additionally, the volatility of MDO would make it prone to rapid spreading and evaporation and therefore the use of surface dispersant would not provide an environmental benefit. It may increase dispersed/entrained hydrocarbon levels which can potentially have higher toxicity to biota in shallow water than naturally dispersed hydrocarbons.</p> <p>Furthermore, this technique may be prevented from being undertaken due to personnel safety issues arising from predicted high local concentrations of atmospheric volatiles.</p>	No	The MDO will rapidly evaporate and disperse naturally. Therefore, application of dispersant would unnecessarily introduce additional chemicals to the marine environment. Any additional entrainment would also increase exposure of subsea species and habitats to hydrocarbons.
Containment and Recovery	Containment and recovery has an effective recovery rate of 5 to 10% when a hydrocarbon encounter rate of 25 to 50% is achieved at BAOAC 4 and 5. It has the potential to reduce the magnitude, probability of, extent of, contact with and accumulation of hydrocarbons on shoreline receptors. It also has the potential to reduce the magnitude and extent of contact with submerged receptors by entrained/dissolved hydrocarbons.	<p>MDO is prone to rapid spreading and evaporation and does not tend to form emulsions.</p> <p>Additionally, whilst modelling of a 500 m³ spill of MDO for this activity predicts that there may be some hydrocarbons present at the 50 g/m² threshold at Montebello AMP and in open ocean (up to 26 km south from the spill location), containment and recovery is not deemed to be a feasible response technique for spills of marine diesel.</p> <p>Furthermore, the volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon thus this response technique is deemed unsuitable for this activity, particularly with the predicted residue of 25 m³.</p>	No	Containment and recovery would be an inappropriate response technique as it requires the spilled hydrocarbon to be BAOAC 4 or 5 with a 50 to 100% coverage of 100 g/m ² to 200 g/m ² . Corraling a volatile hydrocarbon such as MDO is also deemed unsafe for response personnel thus this response strategy is not considered feasible.

Response Technique	Effectiveness	Feasibility	Decision	Rationale for the decision
In situ Burning	In situ burning is only effective where minimum slick thickness can be achieved.	Use of in situ burning as a response technique for MDO is unfeasible as the minimum slick thickness cannot be attained due to rapid spreading and evaporation. In addition, there is a limited window of opportunity in which this technique can be applied (prior to evaporation of the flammable volatiles) which is unlikely to be achieved. Furthermore, entering a volatile environment to undertake this technique would be unsafe for response personnel.	No	MDO characteristics are not appropriate for the use of in situ burning and would unnecessarily cause an increase in the release of atmospheric pollutants.
Mechanical Dispersion	Mechanical dispersion involves the use of a vessel's propeller wash and/or fire hose to target surface hydrocarbons to encourage/speed up dispersion into the water column.	Whilst mechanical dispersion may assist the dissipation of light hydrocarbons, it is unlikely to provide any additional benefit over the natural wind and wave action typically observed in the offshore environment. Furthermore, the volatility of the MDO will make the vicinity of the spill unsafe for response personnel, and the use of vessels within a surface slick will contaminate the vessel and may cause secondary contamination as the vessel transits through unaffected areas.	No	No additional benefit over the natural wind and wave action typically observed in the offshore environment. Furthermore, the use of vessels within a surface slick may contaminate the vessel and may cause secondary contamination.
Shoreline Protection and Deflection	Shoreline protection and deflection can be effective at preventing contamination of at-risk areas.	An MDO spill would be prone to rapid spreading and evaporation and modelling predicts that no shoreline receptors are at risk of contact at response threshold – maximum predicted contact is 7.8 g/m ² . Furthermore, the volatile nature of marine diesel is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon. Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.	No	Stochastic modelling does not predict shorelines at risk of contact at or above response thresholds of >100 g/m ² levels. Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.
Shoreline Clean-up	Shoreline clean-up is an effective means of hydrocarbon removal from contaminated shorelines. To be optimally effective, a level of 250 g/m ² is needed before a realistic shoreline clean-up response can be executed.	An MDO spill would be prone to rapid spreading and evaporation and modelling predicts that no shoreline receptors will be contacted at threshold – any minor contact is significantly below any feasible response thresholds of >100 g/m ² (maximum predicted contact is 7.8 g/m ²). Furthermore, the volatile nature of marine diesel is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon. Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.	No	Stochastic modelling does not predict shoreline contact at or above response thresholds of >100 g/m ² levels therefore, shoreline clean-up would not be feasible. Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.
Oiled Wildlife Response	Oiled wildlife response is an effective response technique for reducing the overall impact of a spill on wildlife. This is mostly achieved through hazing to prevent additional fauna from being contaminated and through rehabilitation of fauna already subject to contamination.	Due to the likely volatile atmospheric conditions surrounding a MDO spill, response options would be limited to hazing for the safety of response personnel. Any rehabilitation of oiled fauna can only be undertaken by trained specialists.	Yes	The modelling undertaken predicts that no identified sensitive receptor locations will be impacted above response thresholds thus it is unlikely that this technique would be required. However, if fauna is at risk of contamination, oiled wildlife response will be undertaken as and where needed.

5 HYDROCARBON SPILL ALARP PROCESS

Woodside's hydrocarbon spill ALARP process is aligned with guidance provided by NOPSEMA in *ALARP Guidance Note N-04300-GN0166* (2022) and *Oil Spill Risk Management Guidance Note N-04750-GN1488* (2021) and is set out in the 'Woodside Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) Guidelines'.

From the identified response planning need and pre-operational NEBA/SIMA, Woodside conducts a structured, semi-quantitative hydrocarbon spill process which has the following steps:

1. considers the Response Planning Need identified in terms of surface area (km²) and available surface hydrocarbon volumes (m³) against existing Woodside capability
2. considers alternative, additional, and improved options for each response technique/control measure by providing an initial and, if required, detailed evaluation of:
 - predicted cost associated with adopting the control measure
 - predicted change/environmental benefit
 - predicted effectiveness/feasibility of the control measure.
3. evaluates the risks and impacts of implementing the proposed response techniques, and any further control measures with associated environmental performance to manage these additional risks and impacts.

Woodside considers the risks and impacts from a hydrocarbon spill to have been reduced to ALARP when:

1. a structured process for identifying and considering alternative, additional, and improved options has been completed for each selected response technique
2. the analysis of alternate, additional, and improved control measures meets one of the following criteria:
 - all identified, reasonably practicable control measures have been adopted; or
 - no identified reasonably practicable additional, alternative and/or improved control measures would provide further overall increased proportionate environmental benefit; or
 - no reasonably practical additional, alternative, and/or improved control measures have been identified.
3. where an alternative, additional and/or improved control measure is adopted, a measurable level of environmental performance has been assigned
4. higher order impacts/ risks have received more comprehensive alternative, additional, and improved control measure evaluations and do not just compare the cost of the adopted control measures to the costs of an extreme or clearly unreasonable control measure
5. cumulative effects have been analysed when considered in combination across the whole activity.

The response technique selection is based on the risk assessment conducted in the EP. The risk assessment identifies the type of oil, volume of release, duration of release, predicted fate, weathering and the EMBA (along with other requirements such as time to impact and predicted volumes ashore). Modelling is then used to inform the NEBA and the prioritisation of suitable response options. The scale of the response techniques selected in the pre-operational NEBA is informed through the assessment of results from deterministic modelling.

For the purpose of the ALARP assessment, the following terms and definitions have been used:

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- Response techniques are considered the control measures that reduce consequences from hydrocarbon spill events. The terms 'response technique' and 'control measure' are used interchangeably.
- Cost is defined as the time, effort and/or trouble taken in financial, safety, design/storage/installation, capital/lease, and/or operations/maintenance terms to adopt a control measure.
- Where the predicted change to environmental impact is compared against standard environmental values and sensitivities impacts using positive or negative criteria from the NEBA Impact Ranking Classification Guidance in Annex A.

5.1 Operational Monitoring

Operational Monitoring includes the gathering and evaluation of data to inform the oil spill response planning and operations. It includes fate and trajectory modelling, spill tracking, weather updates and field observations. This response option is deployed in some capacity for every event.

Table 5-1 provides the operational monitoring plans that support the successful execution of this response technique for this activity.

Table 5-1: Description of supporting operational monitoring plans

ID	Title
OM01	Predictive modelling of hydrocarbons to assess resources at risk
OM02	Surveillance and reconnaissance to detect hydrocarbons and resources at risk
OM03	Monitoring of hydrocarbon presence, properties, behaviour and weathering in water
OM04	Pre-emptive assessment of sensitive receptors at risk
OM05	Shoreline assessment

Woodside maintains an Operational Monitoring Operational Plan ([Link](#)). The proximity of Dampier, Port Hedland, Onslow and Exmouth to the spill event location means that multiple logistical options are available to monitor a spill in relatively short timeframes. The primary mobilisation base for initial monitoring activities would be Dampier. However, in the unlikely event of an extended spill with potential to impact receptors further afield, monitoring activities may also be mobilised from Exmouth, Onslow, Port Hedland and Broome.

5.1.1 Response need based on predicted consequence parameters

The following statements identify the key parameters upon which a response need can be based:

- Operational monitoring will be undertaken from the outset of a spill. This is needed to assess the nature of the spill and track its location. The data collected from the operational monitoring will inform the need for any additional operational monitoring, deployment of response techniques and may assist post-spill scientific monitoring. It also informs if/when the spill has entered State Waters and control of the incident passes to WA DoT.
- Modelling data for WCCS indicated that concentrations equal to or greater than the 1 g/m² and 10 g/m² thresholds could potentially be found, in the form of slicks, up to 53 km and 47 km south from the spill sites, respectively.
- Practicable techniques that could be used for this scenario include OM01, OM02 and OM03. Although modelling does not predict impact of any shoreline receptors at threshold values, OM04 and OM05 would be utilised if any sensitive shoreline receptors are deemed to be at risk of impact.
- The time to contact for entrained hydrocarbons greater than 100 ppb is 6 hours at the Montebello AMP and 86 hours at the Barrow Island Marine Park and Marine Managed Area.
- Arrangements for support organisations who provide specialist services or resources should be tested regularly.
- Plans, procedures and support documents need to be in place for Operational and Support functions. These should be reviewed and updated regularly.
- The duration of the spill would be instantaneous with response operations extending until the hydrocarbon discharge has ceased, surface hydrocarbons are no longer visible, and no additional response or clean-up of wildlife or habitats is predicted.

5.1.2 Environmental performance based on need

Table 5-2: Environmental performance – Monitor and Evaluate

Environmental Performance Outcome		To gather information from multiple sources to establish an accurate common operating picture (COP) as soon as possible and predict the fate and behaviour of the spill to validate planning assumptions and adjust response plans as appropriate to the scenario.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
1	Oil spill trajectory modelling	1.1	Initial modelling available within six hours using the Rapid Assessment Tool	1, 3B, 3C, 4
		1.2	Detailed modelling available within four hours of RPS Response receiving information from Woodside	
		1.3	Detailed modelling service available for the duration of the incident upon contract activation	
2	Tracking buoy	2.1	Tracking buoy located on facility/ lead vessel and ready for deployment 24/7	1, 3A, 3C, 4
		2.2	Deploy tracking buoy from facility/ lead vessel within 2 hours as per the First Strike Plan.	1, 3A, 3B, 4
		2.3	Contract in place with service provider to allow data from tracking buoy to be received 24/7 and processed	1, 3B, 3C, 4
		2.4	Data received to be uploaded into Woodside COP daily to improve the accuracy of other monitor and evaluate strategies	1, 3B, 4
3	Satellite imagery	3.1	Contract in place with third-party provider to enable access and analysis of satellite imagery. Imagery source/type requested on activation of service	1, 3C, 4
		3.2	Third-party provider will confirm availability of an initial acquisition within two hours	1, 3B, 3C, 4
		3.3	First image received with 24 hours of Woodside confirming to third-party provider its acceptance of the proposed acquisition plan	1
		3.4	Third-party provider to submit report to Woodside per image. Report is to include a polygon of any possible or identified slick(s) with metadata	1
		3.5	Data received to be uploaded into Woodside COP daily to improve accuracy of other monitor and evaluate techniques	1, 3B, 4
		3.6	Satellite Imagery services available and employed during response	1, 3C, 4
4	Aerial surveillance	4.1	Two trained aerial observers available to be deployed by day 1 from resource pool	1, 2, 3B, 3C, 4
		4.2	One aircraft available for two sorties per day, available for the duration of the response from day 1	1, 3C, 4
		4.3	Observer to compile report during flight as per first strike plan. Observers report available to the IMT within two hours of landing after each sortie	1, 2, 3B, 4

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Environmental Performance Outcome		To gather information from multiple sources to establish an accurate common operating picture (COP) as soon as possible and predict the fate and behaviour of the spill to validate planning assumptions and adjust response plans as appropriate to the scenario.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
5	Hydrocarbon detections in water	5.1	Activate third-party service provider as per first strike plan. Deploy resources within three days: <ul style="list-style-type: none"> • three specialists in water quality monitoring • two monitoring systems and ancillaries • one vessel for deploying the monitoring systems with a dedicated winch, lifting equipment (i.e. A-frame crane, HIAB crane, etc.) and ancillaries to deploy the equipment 	1, 2, 3C, 3D, 4
		5.2	Water monitoring services available and employed during response	1, 3C, 4
		5.3	Preliminary results of water sample as per contractor's implementation plan within seven days of receipt of samples at the accredited lab	
		5.4	Daily fluorometry reports as per service provider's implementation plan will be provided to IMT to validate modelling and monitor presence/absence of entrained hydrocarbons	
		5.5	Use of Autonomous Underwater Vehicles (AUVs) for hydrocarbon presence and detection may be used as a contingency if the operational NEBA confirms conventional methods are unsafe or not possible	1, 2, 3C, 4
6	Pre-emptive assessment of sensitive receptors	6.1	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 2 specialists from resource pool in establishing the status of sensitive receptors	1, 2, 3B, 3C, 4
		6.2	Daily reports provided to IMT on the status of the receptors to prioritise RPAs and maximise effective utilisation of resources	1, 3B, 4
7	Shoreline assessment	7.1	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 1 specialist(s) in Shoreline Contamination Assessment Techniques (SCAT) from resource pool for each of the RPAs with predicted impacts	1, 2, 3B, 3C, 4
		7.2	SCAT reports provided to IMT daily detailing the assessed areas to maximise effective utilisation of resources	1, 3B, 4
8	Management of environmental impact of the response risks	8.1	If vessels are required for access, anchoring locations will be selected to minimise disturbance to benthic habitats. Where existing fixed anchoring points are not available, locations will be selected to minimise impact to nearshore benthic environments with a preference for areas of sandy seabed where they can be identified.	1
		8.2	Shoreline access routes with the least environmental impact identified will be selected by a specialist in SCAT operations	1

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The control measures and capability of Woodside and its third-party service providers are shown to support Monitor and Evaluate activities up to and including the identified WCCS. This is demonstrated by the following:

- Woodside has a documented, structured and tested capability for Monitor and Evaluate operations including internal trajectory modelling capabilities, tracking buoys located offshore and contracted aerial observation platforms with access to trained observers
- Woodside and its third-party service providers ensure there is sufficient capability for the duration of the response
- Woodside has assessed the existing capability available and considered potential alternative, additional and improved control measures. Where control measures have been selected and implemented, they are included in Section 6.1.

5.2 Source Control via Vessel SOPEP

Vessel source control will be conducted, where feasible and in accordance with MARPOL 73/78 Annex I, by the Vessel Master under the Shipboard Oil Pollution Emergency Plan (SOPEP) triggered by any loss of containment from the PAP vessels.

The SOPEP provides guidance to the Master and Officers on board the vessel with respect to the extra steps to be taken when an unexpected pollution incident has occurred or is likely to occur. The SOPEP contains all information and operational instructions required by IMO Resolution MEPC.54 (32) adopted on 6 March 1992, as amended by resolution MEPC.86 (44) adopted on 13 March 2000.

Its purpose is to set in motion the necessary actions to stop or minimise oil discharge and mitigate its effects and outlines responsibilities, pollution reporting requirements, procedures and resources needed in the event of a hydrocarbon spill from vessel activities.

In the event of a WCCS vessel collision event, the vessel master may engage precautionary marine manoeuvres to avoid collision or commence pumping operations to transfer marine diesel and thus minimise the release.

5.2.1 Environmental performance based on need

Woodside has established control measures, environmental performance outcomes, performance standards and measurement criteria to be used for vessel-source oil spill response during the PAP which are detailed in Section 7.7.2 of the EP. The vessel master's roles and responsibilities are described in EP Section 8.3.

Performance standards for each contracted PAP vessel are detailed in the vessel's specific SOPEP.

These standards ensure that sufficient resources are available and are adequately tested to ensure implementation of the SOPEP in the event of a hydrocarbon spill.

5.3 Oiled wildlife response (including hazing)

Oiled wildlife response (OWR) includes wildlife surveillance/reconnaissance, wildlife hazing, pre-emptive capture, and the capture, cleaning, treatment, and rehabilitation of animals that have been oiled. In addition, it includes the collection, post-mortem examination, and disposal of deceased animals that have succumbed to the effects of oiling.

For a petroleum activity spill in Commonwealth waters, Woodside will act as the Control Agency and will be responsible for the wildlife response. In such circumstances, Woodside would implement a response in accordance with the *Oiled Wildlife Operational Plan*, the WA Oiled Wildlife Response Plan (WAOWRP) (DBCA, 2022a) and the WA OWR Manual (DBCA, 2022b). The *Oiled Wildlife Operational Plan* includes the process for the IMT to mobilise resources depending on the nature and scale of the spill. Oiled wildlife operations would be implemented with advice and assistance from the Oiled Wildlife Advisor from the Department of Biodiversity, Conservation and Attractions (DBCA).

The key plan for OWR in WA is the WAOWRP (DBCA, 2022a). The WAOWRP establishes the framework for preparing and responding to potential or actual wildlife impacts during a spill and sets out the management arrangements for implementing an OWR in conjunction with the DoT *State Hazard Plan – Maritime Environmental Emergencies* (SHP-MEE). It is the responsibility of DBCA to administer the WAOWRP under the direction of the DoT. The WA OWR Manual (DBCA, 2022b) supports, and should be used in conjunction with, the WAOWRP. The purpose of the WA OWR Manual is to standardise the operating procedures, protocols and processes for an OWR during a spill event in WA waters, and to create alignment between the wildlife response processes and the overall incident response (DBCA, 2022b).

If a spill occurs in WA State waters or enters State waters, DBCA is the Jurisdictional Authority for wildlife, for level 2/3 spills, and will also lead the oiled wildlife response under the control of the DoT. DBCA is the State Government agency responsible for administering the *Biodiversity Conservation Act 2016 (BC Act)* which has provisions for authorising activities that affect wildlife.

For level 1 spills in State waters, Woodside will be the Control Agency, including for wildlife response. It is, however, also an expectation that for level 2/3 petroleum activity spills, Woodside will conduct the initial first-strike response actions for wildlife response and continue to manage those operations until DBCA is activated as the lead agency for wildlife response and formal handover occurs. Following formal handover, Woodside will function as a support organisation for the OWR and will be expected to continue to provide planning and resources as required.

Woodside retains specialist personnel to support and manage oiled wildlife operations, including trained and competent responders for deployment in Exmouth and Dampier. Additional personnel would be sourced through Woodside's arrangements to support an oiled wildlife response as required.

5.3.1 Response need based on predicted consequence parameters

Wildlife Response Priority Areas and Assessment of Wildlife Impact

French-McCay et al. (2002), based on a review of existing literature at the time, determined lethal thresholds for floating and shoreline oil for the external coating of wildlife to be 10 g/m² for floating, and 100 g/m² for shoreline accumulation. It should however be noted that toxicity thresholds for wildlife are likely to be highly variable due to differences in species sensitivity, type of hydrocarbon, type of exposure (ingestion or external oiling), life-stage, and on-water versus land habitat.

For planning purposes, determination of wildlife priority protection areas is based on stochastic modelling of the worst-case spill scenarios at 10 g/m² for floating, and 100 g/m² for shoreline accumulation (acknowledging that impacts to wildlife may occur at lower concentrations), the known presence of wildlife, and in consideration of the following:

- presence of high densities of wildlife, threatened species, and/or endemic species with high site fidelity

- greatest probability of shoreline accumulation
- shortest timeframe to contact.

Table 5-3 outlines the wildlife response priority areas for this activity. At the time of a spill, identification and allocation of wildlife response priority areas should also take into consideration any key biological activities. Additional detail regarding species and their key biological activities within the vicinity of the PAP are described in Section 4 of the NWS and Julimar Exploration Wellhead Decommissioning Environment Plan.

For WA, the Pilbara and Kimberley Regional Oiled Wildlife Plans (DBCA (formerly Department of Parks and Wildlife), 2014) provide useful information relating to wildlife priority response areas in their respective regions.

Table 5-3: Key at-risk species potentially in Response Protection Areas and open ocean

Species	Montebello Marine Park	Open ocean
Marine turtles	✓	✓
Whale sharks	✓	✓
Seabirds and/or migratory shorebirds	✓	✓
Cetaceans – migratory whales	✓	✓
Cetaceans – dolphins and porpoises	✓	✓
Dugongs	✓	✓
Sharks and rays	✓	✓

The following statements identify the key parameters upon which a wildlife response need can be based:

- Floating oil at >10 g/m² is predicted at Montebello Marine Park within 13 hours for CS-01 (Julimar).
- There is no shoreline contact predicted at any threshold for the duration of the spill.
- At sea there are likely to be low numbers of at risk or impacted wildlife, and limited opportunities to rescue wildlife, given the distribution and behaviour of animals in the open marine environment. At sea, continued wildlife reconnaissance, carcass recovery, sampling of carcasses that cannot be retrieved and scientific monitoring are more likely to be the focus of response efforts.
- As the surface oil approaches shorelines and as oil accumulates on the shoreline, potential for oiled wildlife impacts are likely to increase as well as opportunities to rescue wildlife.
- It is estimated that the wildlife impact would be between medium and high, as defined in the WAOWRP (DBCA, 2022a) (**Table 5-4**).

Table 5-4: WAOWRP Guide for rating wildlife impact of an oil spill (DBCA, 2022)

Wildlife Impact Rating	Low	Medium	High
What is the likely duration of the wildlife response?	<3 days	3-10 days	>10 days
What is the likely total intake of animals?	<10	11-25	>25
What is the likely daily intake of animals?	0-2	2-5	>5
Are threatened species, or species protected by treaty, likely to be impacted, either directly or by pollution of habitat or breeding areas?	No	Yes – possible	Yes – likely
Is there likely to be a requirement for building primary care facility for treatment, cleaning and rehabilitation?	No	Yes – possible	Yes – likely

Tactics

Where there is imminent or actual impact to wildlife, Woodside will activate the Wildlife Division and follow the oiled wildlife incident management framework and implementation plan outlined in the *Woodside Oiled Wildlife Operational Plan*.

In Commonwealth waters, Woodside will be responsible for the planning and implementation of the OWR in its entirety. Noting that at sea, and in comparison to the shoreline, there are likely to be less wildlife impacted by an oil spill and limited opportunities to rescue wildlife, given the distribution and behaviour of animals in the open marine environment. At sea, continued wildlife reconnaissance, carcass recovery, sampling of carcasses that cannot be retrieved and integration with scientific monitoring are more likely to be the focus of the OWR.

In State waters, Woodside will conduct the initial first-strike response actions for wildlife and continue to manage those operations until DBCA is activated as the lead agency for wildlife response and formal handover occurs. Following formal handover, Woodside will function as a support organisation for the OWR and will be expected to continue to provide planning and resources as required.

If a protracted response is likely, requiring preventative actions and/or wildlife rescue, and formal hand over to the Control Agency (in State waters) has not yet occurred, the Wildlife Division will be responsible for the development of the Wildlife Division portion of the IAP. Preventative actions, such as hazing, along with capture, intake and treatment require a higher degree of planning, approval (licenses) and skills and will be planned for and carried out under the IAP as outlined in the *Oiled Wildlife Operational Plan* and in accordance with the WAOWRP (DBCA, 2022a) and WA OWR Manual (DBAC, 20022b).

The oiled wildlife response technique targets key wildlife populations at risk within Commonwealth open waters and the nearshore waters as described in Section 4 of the EP.

5.3.2 Environmental performance based on need

Table 5-5: Environmental Performance – Oiled Wildlife Response

Environmental Performance Outcome		Oiled Wildlife Response is conducted in accordance with the Western Australian Oiled Wildlife Response Plan (WAOWRP, 2022) to ensure it is conducted in accordance with legislative requirements to house, release or euthanise wildlife under the <i>Biodiversity Conservation Act 2016</i> .		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
9	Wildlife response arrangements	9.1	Oiled Wildlife Operational Plan in place and utilised during a response to plan, coordinate, implement and terminate operations.	1, 3A, 4
		9.2	Initiate a wildlife first strike response 5 days prior to confirmed or imminent wildlife contact as directed by relevant Operational Monitoring techniques (OM01-05) and in liaison with DBCA.	1
10	Wildlife response equipment	10.1	Maintain contract with AMOSC for immediate access to oiled wildlife response equipment.	1, 3C, 3D, 4
		10.2	Maintain contract with OSRL to access additional oiled wildlife response equipment.	1, 3C, 3D, 4
11	Wildlife responders	11.1	Two Oiled Wildlife Team Members to supervise the oiled wildlife operations who have completed an Oiled Wildlife Response Management course.	1, 2, 3B
		11.2	Maintain contract with AMOSC for immediate access to trained oiled wildlife response specialists.	1, 3B, 3C
		11.3	Maintain contract with OSRL to access additional trained oiled wildlife response specialists.	1, 3B, 3C
		11.4	Open communication line to be maintained between IMT and infield operations to ensure awareness of progress against plan(s).	1, 3A, 3B
12	Management of environmental impacts of response risks	12.1	Oiled wildlife operations (including hazing) would be implemented with advice and assistance from the Oiled Wildlife Advisor from the DBCA, and in accordance with the processes and methodologies described in the WAOWRP and the relevant regional plan.	1

The resulting wildlife response capability has been assessed against the WCCS. The range of techniques provide an ongoing approach to response at identified RPAs.

Under optimal conditions, during the subsea or surface release, the capability available meets the need identified. It indicates that, the wildlife response capability has the following expected performance:

- Undertake OWR first strike response:
 - Mobilisation of operational monitoring (OM01-05) to identify wildlife and RPAs contacted or at imminent risk of contact by hydrocarbons.
- Availability and mobilisation of trained OWR personnel to supervise OWR activities.
- Access to wildlife resources (personnel and equipment) to meet the needs where there are medium or high levels of wildlife impact.

5.4 Waste Management

Waste management is considered a support technique to wildlife response, containment and recovery and shoreline clean-up. Waste generated and collected during the response that will require handling, management and disposal may consist of:

- liquids (hydrocarbons and contaminated liquids) collected during wildlife response, and/or
- solids/semi-solids (oily solids, garbage, contaminated materials) collected during wildlife response.

Expected waste volumes during an event are likely to vary depending on oil type, volume released, response techniques employed and how weathering of hydrocarbons. Waste management, handling and capacity should be scalable so continuous response operations can be maintained.

Relevant waste management activities will follow the Environment Protection (Controlled Waste) Regulations 2004 and the waste will be managed to minimise final disposal volumes. Waste treatment techniques will consider contaminated solids treatment to allow disposal to landfill and solids with high concentrations of hydrocarbon will be treated and recycled where possible or used in clean fill if suitable.

The waste products would be transported from response locations to the nearest suitable staging area/waste transfer station for treatment, disposal or recycling. Waste will be transferred with appropriately licenced vehicles. Containers will be available for temporary waste storage and will be:

- labelled with the waste type
- provided with appropriate lids to prevent waste being blown overboard
- banded if storing liquid wastes
- processes will be in place for transfers of bulk liquid wastes and include:
 - inspection of transfer hose undertaken prior to transfer
 - watchman equipped with radio visually monitors loading hose during transfer
 - tank gauges monitored throughout operation to prevent overflow.

The *Oil Spill Preparedness Waste Management Support Plan* details the procedures, capability and capacity in place between Woodside and its primary waste services contractor to manage waste volumes generated from response activities.

5.4.1 Response need based on predicted consequence parameters

Table 5-6: Response Planning Assumptions – Waste Management

Response planning assumptions: Waste management	
Waste loading per m ³ oil recovered (multiplier)	Oiled wildlife response – approximately 1 m ³ of oily solid and liquid waste generated for each wildlife unit cleaned.

5.4.2 Environmental performance based on need

Table 5-7: Environmental Performance – Waste Management

Environmental Performance Outcome		To minimise further impacts, waste will be managed, tracked and disposed of in accordance with relevant laws and regulations.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
13	Waste Management	13.1	Contract with waste management services for transport, removal, treatment and disposal of waste	1, 3A, 3B, 3C, 4
		13.2	Recovered hydrocarbons and wastes will be transferred to licensed treatment facility for reprocessing or disposal	
		13.3	Teams will segregate liquid and solid wastes at the earliest opportunity	
		13.4	Waste management provider support staff available year-round to assist in the event of an incident with waste management as detailed in contract	
		13.5	Open communication line to be maintained between IMT and waste management services to ensure the reliable flow of accurate information between parties	1, 3A, 3B
		13.6	Waste management to be conducted in accordance with Australian laws and regulations	1, 3A, 3B, 3C, 4
		13.7	Waste management services available and employed during response	
14	Management of environmental impact of the response risks	14.1	All oiled wildlife response sites zoned and marked before operations commence to prevent secondary contamination and minimise the mixing of clean and oiled waste	1, 3A, 3B, 3C, 4

The resulting waste management capability has been assessed against the WCCS. The range of techniques provide an ongoing approach to waste management at identified RPAs.

Given that modelling predicts that there will be no floating oil at recoverable threshold concentrations and no shoreline impact at feasible clean-up threshold concentrations, the only waste management requirements will be for oiled wildlife response and the capability available therefore exceeds the need identified.

It indicates that the waste management capability has the following expected performance:

- Woodside currently has access to service providers committed to providing approximately 120,000 m³ liquid waste over the duration of the spill
- Woodside has assessed the existing capability available and considered potential alternative, additional and improved control measures. Where control measures have been selected and implemented, they are included in Section 6.4.

5.5 Scientific monitoring

A scientific monitoring program (SMP) would be activated following a Level 2 or 3 unplanned hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors. This would consider receptors at risk (ecological and socio-economic) for the entire predicted EMBA and in particular, any identified Pre-emptive Baseline Areas (PBAs) for the credible spill scenario(s) or other identified unplanned hydrocarbon releases associated with the Petroleum Activities Program (PAP) (refer to Table 2-1: PAP credible spill scenarios).

The outputs of the stochastic hydrocarbon spill modelling are used to assess the environmental risk, in terms of delineating which areas of the marine environment are predicted to be exposed to hydrocarbons exceeding environmental threshold concentrations (refer to **Table 2-2**). The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations modelled is defined as the EMBA. The Petroleum Activities Program worst-case credible spill scenarios (CS-01 (Julimar), CS-01 (NWS), and CS-02 (NWS)) define the EMBA and is the basis of the SMP approach presented in this section.

It should be noted that the resulting SMP receptor locations differ from the Response Protection Areas (RPAs) presented and discussed in **Section 3** of this document due to the applicability of different hydrocarbon threshold levels. The SMP would be informed by the data collected via the operational monitoring program (OMP) studies, however, it differs from the OMP in being a long-term program independent of, and not directing, the operational oil spill response or monitoring of impacts from response activities (refer to **Section 5.1**) for operational monitoring overview).

Key objectives of the Woodside oil spill scientific monitoring program are:

- Assess the extent, severity and persistence of the environmental impacts from the spill event; and
- Monitor subsequent recovery of impacted key species, habitats and ecosystems.

The SMP comprises ten targeted environmental monitoring programs to assess the condition of a range of physico-chemical (water and sediment) and biological (species and habitats) receptors including Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) listed species, environmental values associated with protected areas and socio-economic values, such as fisheries. The ten SMPs are as follows:

- SM01 – Assessment of the presence, quantity and character of hydrocarbons in marine waters (linked to OM01 to OM03)
- SM02 – Assessment of the presence, quantity and character of hydrocarbons in marine sediments (linked to OM01 and OM05)
- SM03 – Assessment of impacts and recovery of subtidal and intertidal benthos
- SM04 – Assessment of impacts and recovery of mangroves/saltmarsh habitat
- SM05 – Assessment of impacts and recovery of seabird and shorebird populations
- SM06 – Assessment of impacts and recovery of nesting marine turtle populations
- SM07 – Assessment of impacts to pinniped colonies including haul-out site populations
- SM08 – Desktop assessment of impacts to other non-avian marine megafauna
- SM09 – Assessment of impacts and recovery of marine fish (linked to SM03)
- SM10 – Assessment of physiological impacts to important fish and shellfish species (fish health and seafood quality/safety) and recovery.

These SMPs have been designed to cover all key tropical and temperate habitats and species within Australian waters and broader, if required. A planning area for scientific monitoring is also identified to acknowledge potential hydrocarbon contact below the environmental threshold concentrations

and beyond the EMBA. This planning area has been set with reference to the entrained low exposure value of 10 ppb detailed in NOPSEMA Bulletin #1 Oil Spill Modelling (2019), as shown in **Figure 5 1**.

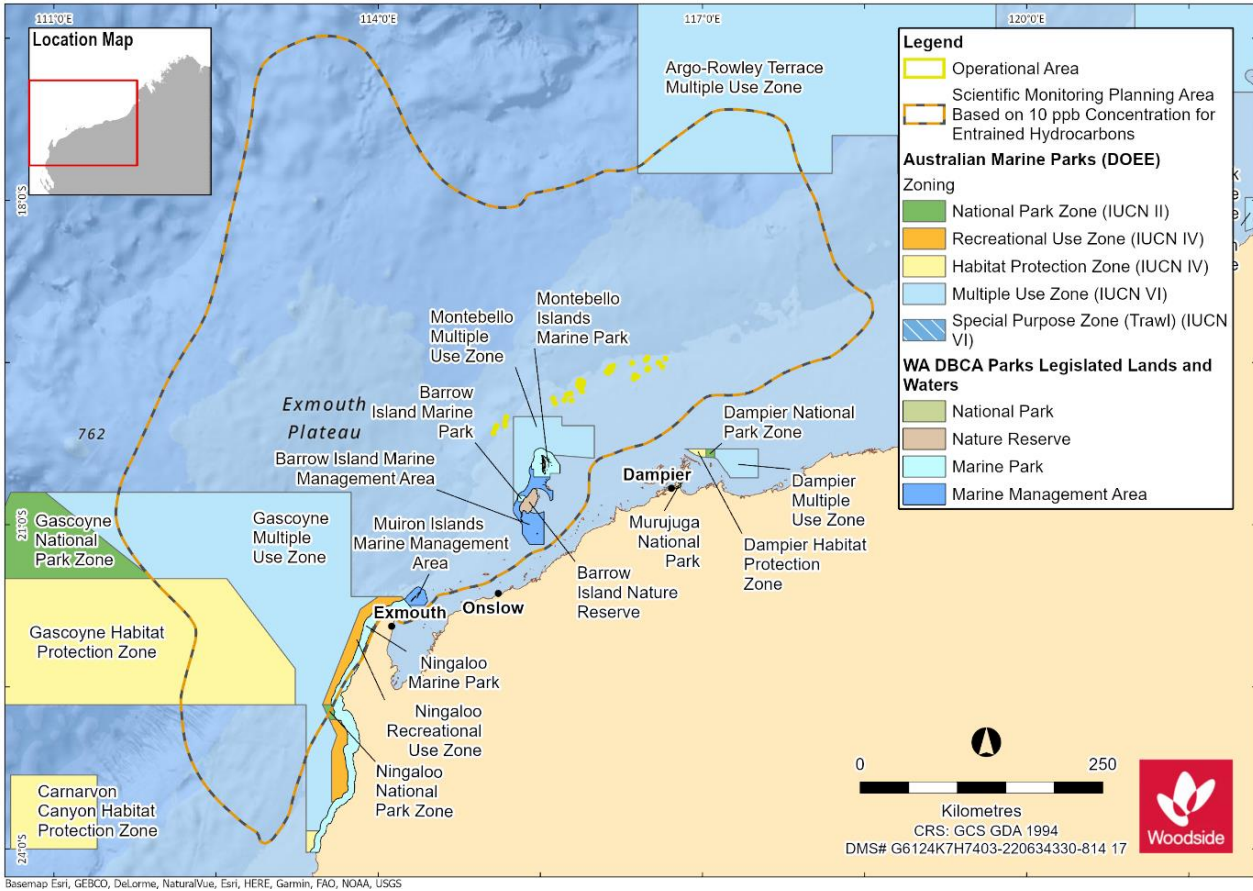


Figure 5-1: The planning area for scientific monitoring based on the area potentially contacted by the low (below ecological impact) entrained hydrocarbon threshold of 10 ppb in the event of the worst-case credible spill scenarios for three well locations (Angel-3 well, Lady Nora-2 well and Balnaves Deep-1 well.

Please note that **Figure 5-1** represents the overall combined extent of the oil spill model outputs based on a total of 200 replicate simulations over an annual period for Angel-3 well, Lady Nora-2 well and Balnaves Deep-1 well and therefore represents the largest spatial boundaries of 100 hydrocarbon spill combinations for the three well locations, not the spatial extent of a single hydrocarbon spill trajectory at any one of the well locations.

5.5.1 Scientific Monitoring Deployment Considerations

Scientific Monitoring Deployment Considerations	
Existing baseline studies for sensitive receptor locations predicted to be affected by a spill	<p>Pre-emptive Baseline Areas (PBAs) of the following two categories:</p> <ul style="list-style-type: none"> • PBAs within the predicted <10-day hydrocarbon contact time prediction: The approach is to conduct a desktop review of available and appropriate baseline data for key receptors for locations (if any) that are potentially impacted within 10 days of a spill and look to conduct baseline data collection to address data gaps and demonstrate spill response preparedness. Planning for baseline data acquisition is typically commenced pre-PAP and execution of studies undertaken with consideration of weather, receptor type, seasonality and temporal assessment requirements. • PBAs predicted >10 days to hydrocarbon contact: As part of this assessment, a desktop review is conducted of available and appropriate baseline data for key receptors for locations (if any) that are potentially impacted >10 days' time of a hydrocarbon spill event and documented (refer to Section 5.5.2). In the event of a spill, the SMP activation (as per the NWS and Julimar Exploration Wellhead Decommissioning Oil Pollution First Strike Response Plan) directs the SMP team to follow the steps outlined in the SMP Operational Plan. The steps include: the review of availability and type of existing baseline data, with particular reference to any Pre-emptive Baseline Areas (PBAs) identified as >10 days to hydrocarbon contact as predicted by forecast modelling trajectories. Such information is used to identify response phase PBAs and plan for the activation of SMPs for pre-emptive (i.e. pre-hydrocarbon contact) baseline assessment.
Pre-emptive Baseline in the event of a spill	Activation of SMPs in order to collect baseline data at sensitive receptor locations with predicted hydrocarbon contact time >10 days (as documented in ANNEX C).
Survey platform suitability and availability	In the event of the SMP activation, suitable survey platforms are available and can support the range of equipment and data collection methodologies to be implemented in nearshore and offshore marine environments.
Trained personnel to implement SMPs suitable and available.	Access to trained personnel and the sampling equipment contracted for scientific monitoring via a dedicated scientific monitoring program standby contract.
Met-ocean conditions	<p>The following met-ocean conditions have been identified to implement SMPs:</p> <ul style="list-style-type: none"> • Waves <1 m for nearshore systems • Waves <1.5 m for offshore systems • Winds <20 knots • Daylight operations only. <p>SMP implementation will be planned and managed according to HSE risk reviews and the met-ocean conditions on a day to day basis by SMP operations.</p>

5.5.2 Response planning assumptions

Response Planning Assumptions	
Pre-emptive Baseline Areas (PBAs)	Pre-emptive Baseline Areas (PBAs) identified through the application of defined hydrocarbon impact thresholds during the Quantitative Spill Risk Assessment process and a consideration of the minimum time to contact at receptor locations fall into two categories:

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	<ul style="list-style-type: none"> • PBAs for which baseline data exist or are planned for and data collection may commence pre-PAP (≤ 10 days minimum time to contact). • PBAs (> 10 days minimum time to contact) for which baseline data may be collected in the event of an unplanned hydrocarbon release. Response phase PBAs are prioritised for SMP activities due to vulnerability (i.e. time to contact and environmental sensitivity) to potential impacts from hydrocarbon contact and an identified need to acquire baseline data. <p>Time to hydrocarbon contact of >10 days has been identified as a minimum timeframe within which it is feasible to plan and mobilise applicable SMPs and commence collection of baseline (pre-hydrocarbon contact) data, in the event of an unplanned hydrocarbon release from the activity.</p> <p>The PBAs for NWS and Julimar Exploration Wellhead Decommissioning are identified and listed in ANNEX D, Table D-1. The listed PBAs, together with the situational awareness (provided by the operational monitoring) are the basis for the response phase SMP planning and implementation.</p>
Pre-Spill	<p>Activity: NWS and Julimar Exploration Wellhead Decommissioning.</p> <p>A review of existing baseline data for receptor locations (refer to Annex D, Table D-1) with potential to be contacted by surface, dissolved or entrained hydrocarbons at environmental thresholds ≤ 10 days, relating to the worse case credible scenario hydrocarbon release for the activity has identified the following:</p> <ul style="list-style-type: none"> • Commonwealth marine environment • Rankin Bank • Glomar Shoal • Barrow, Montebello and Lowendal Island groups (including State Marine Parks and Management Areas) • Southern Pilbara Island group. <p>Refer to ANNEX D, Table D-2 – baseline data available.</p> <p>Australian Marine Parks (AMPs) potentially affected includes:</p> <ul style="list-style-type: none"> • Montebello AMP • All the Australian Marine Parks (AMPs) are located in offshore waters where hydrocarbon exposure is possible from floating hydrocarbons (on surface waters) and in the upper water column (0-20 m depth range, approximately).
In the Event of a Spill	<p>Receptor locations with >10 days to hydrocarbon contact, as well as the wider area, will be investigated and identified by the SMP team (in the Environment Unit of the CIMT) as the spill event unfolds and as the situational awareness provided by the OMPs permits delineation of the spill affected area (for example, updates to the spill trajectory tracking). The full list of receptor locations is presented in Annex D, based on the PAP worse-case credible spill scenarios (CS-01 (Julimar), CS-01 (NWS), and CS-02 (NWS)) (Table 2-1).</p> <p>To address the initial focus in a response phase SMP planning situation, receptor locations predicted to be contacted between >10 days have been identified as follows:</p> <ul style="list-style-type: none"> • Ningaloo Coast ⁵ • Muiron Islands ⁶. <p>Refer to ANNEX D, Table D-2 – baseline data available.</p> <ul style="list-style-type: none"> • Ningaloo AMP • Gascoyne AMP. <p>The unfolding spill affected area predictions and confirmation of appropriate baseline data will determine the selection of receptor locations and SMPs to be activated in order to gather pre-emptive (pre-hydrocarbon contact) data. Refer to ANNEX C for further</p>

⁵ Ningaloo Coast includes the WHA, State Marine Park

⁶ Muiron Islands includes the WHA and State Marine Management Area

	<p>details on the process for scientific monitoring plan implementation and delivery. The timing of SMP activation and mobilisation of the individual SMPs to undertake data collection will be decided and documented by the Woodside SMP team following the process outlined in the SMP Operational Plan.</p> <p>In the event key receptors within geographic locations potentially impacted after 10 days (following a spill event or commencement of the spill), a response phase SMP effort to collect baseline data would be addressed. SMP planning would assess where adequate and appropriate baseline data are not available and a response phase effort to collect baseline data for the following purposes:</p> <ul style="list-style-type: none"> • Priority will be given to the collection of baseline data for receptors predicted to be within the spill affected area prior to hydrocarbon contact. The process is initiated with the investigation of available baseline and time to hydrocarbon contact (>10 days which is sufficient time to mobilise SMP teams and acquire data before hydrocarbon contact). With reference to the NWS and Julimar Exploration Wellhead Decommissioning, priority would be focused on the Ningaloo Coast, south of the predicted minimum time to contact locations. • Highly sensitive and/or valued habitats and communities in coastal waters will be prioritised for pre-emptive baseline surveys over open water areas of AMPs. • Collection of baseline data for receptors predicted to be outside the spill affected area so reference datasets for comparative analysis with impacted receptor types can be assessed post-spill.
<p>Baseline Data</p>	<p>A summary of the spill affected area and receptor locations as defined by the EMBA for the PAP worst case credible spill scenarios (CS-01 (Julimar), CS-01 (NWS), and CS-02 (NWS)) is presented in NWS and Julimar Exploration Wellhead Decommissioning EP (Section 7).</p> <p>The key receptors at risk by location and corresponding SMPs based on the EMBA for the PAP are presented in ANNEX D, Table D-1, as per the worst case credible spill event scenarios. This matrix maps the receptors at risk with their location and the applicable SMPs that may be triggered in the event of a Level two or three hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors. Receptor locations and applicable SMPs are colour coded to highlight possible time to contact based on receptor types and locations.</p> <p>The status of baseline studies relevant to the PAP are tracked by Woodside through the maintenance of a SMP Environmental Baseline Database (managed by the Woodside Environmental Science team), as well as accessing external databases such as the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA)[1] (refer to ANNEX C).</p>

5.5.3 Summary – scientific monitoring

The resulting scientific monitoring capability has been assessed against the PAP worst case credible spill scenarios (CS-01 (Julimar), CS-01 (NWS), and CS-02 (NWS)). The SMP assessment provides for a range of strategies and an ongoing approach to monitoring the response and operations to assess and evaluate the scale and extent of impacts. All known reasonably practicable control measures have been adopted with the cost and organisational complexity of these options determined to be moderate and the overall delivery effectiveness determined to be medium. The SMP’s main objectives can be met, with no additional, alternative or improved control measures providing further benefit.

5.5.4 Response planning: need, capability and gap – scientific monitoring

The receptor locations identified in ANNEX D provide the basis of the SMPs likely to be selected and activated. Once the Woodside SMP Delivery team and Standby SMP contractor have been stood

[1] <https://biocollect.ala.org.au/imsa#max%3D20%26sort%3DdateCreatedSort>

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up and the exact nature and scale of the spill becomes known, the SMPs to be activated will be confirmed as per the process set out in the SMP Operational Plan.

Scope of SMP Operations in the event of a hydrocarbon spill

Receptor locations of interest for the SMP during the response phase are:

- Ningaloo Coast
- Muiron Islands
- Barrow, Montebello and Lowendal Island groups
- Ningaloo AMP
- Gascoyne AMP

Documented baseline studies are available for certain sensitive receptor locations including Rankin Bank and Glomar Shoal, and the Ningaloo Coast and Muiron Islands (**ANNEX D, Table D-2**). The SMP approach in the response phase would still deploy SMP teams to maximise the opportunity to collect pre-emptive baseline data at sensitive receptor locations, i.e., the sections of the Ningaloo Coast not immediately contacted to hydrocarbons. As the exact locations where hydrocarbon contact occurs may be unpredictable, SM01 would be mobilised as a priority to be able to detect hydrocarbons and track the leading edge of the spill to verify where hydrocarbon contact occurs which will assist with where SMP resources are a priority need to obtain pre-emptive baseline data.

The option analysis in **Section 6.5** considers ways to reduce the gap by considering alternate, additional, and/or improved control measures on each selected response strategy.

5.5.5 Environmental performance based on need

Table 5-8: Scientific monitoring

Environmental Performance Outcome		Woodside can demonstrate preparedness to stand up the SMP to quantitatively assess and report on the extent, severity, persistence and recovery of sensitive receptors impacted from the spill event		
Control measure		Performance Standard		Measurement Criteria
15	<ul style="list-style-type: none"> Woodside has an established and dedicated SMP team comprising the Environmental Science Team and additional Environment Advisers within the HSEQ Function. 	15.1	SMP team comprises a pool of competent Environment Advisers (stand up personnel) who receive training regarding the SMP, SMP activation and implementation of the SMP on an annual basis.	<ul style="list-style-type: none"> Training materials Training attendance registers Process that maps minimum qualification and experience with key SMP role competency and a tracker to manage availability of competent people for the SMP team including redundancy and rostering.
16	<ul style="list-style-type: none"> Woodside have a SMP standby contractor to provide scientific personnel to resource a base capability of one team per SMP (SM01-SM10, see Table C-2, ANNEX C) as detailed in Woodside's SMP standby contractor Implementation Plan, to implement the oil spill scientific monitoring programs. The availability of relevant personnel is reported to Woodside on a monthly basis via a simple report on the base-loading availability of people for each of the SMPs comprising field work for data collection (SMP resourcing report register). In the event of a spill and the SMP is activated, the base-loading availability of scientific personnel will be provided by SMP standby contractor for the individual SMPs and where gaps in resources are identified, SMP standby contractor/Woodside will seek additional personnel (if needed) from other sources including Woodside's Environmental Services Panel. 	16.1	<p>Woodside maintains the capability to mobilise personnel required to conduct scientific monitoring programs SM01 – SM10 (except desktop based SM08):</p> <ul style="list-style-type: none"> Personnel are sourced through the existing standby contract with SMP standby, as detailed within the SMP Implementation Plan. Scientific Monitoring Program Implementation Plan describes the process for standing up and implementing the scientific monitoring programs. SMP team stand up personnel receive training regarding the stand up, activation and implementation of the SMP on an annual basis. 	<ul style="list-style-type: none"> HSP Internal Control Environment tracks the quarterly review of the Oil Spill Contracts Master. SMP resource report of personnel availability provided by SMP contractor on monthly basis (SMP resourcing report register). Training materials Training attendance registers Competency criteria for SMP roles SMP annual arrangement testing and reporting.
17	<ul style="list-style-type: none"> Roles and responsibilities for SMP implementation are captured in Table C-1 (Annex C) and the SMP team (as per the organisational structure of the CIMT) is outlined in SMP Operational Plan. Woodside has a defined Crisis and Incident Management structure including Source Control, Operations, Planning and Logistics Sections to manage a loss of well control response. SMP Team structure, interface with SMP standby contractor (standby SMP contractor) and linkage to the CIMT is presented in Figure C-1, ANNEX C. Woodside has a defined Command, Control and Coordination structure for Incident and Emergency Management that is based on the AIIMS framework utilised in Australia. Woodside utilises an online Incident Management Information System (IMIS) to coordinate and track key CIMT Sections. This includes specialist modelling programs, geographic information systems (GIS), as well as communication flows within the Command, Control and Coordination structure. SMP activated via the First Strike Plan. Step by step process to activation of individual SMPs provided in the SMP Operational Plan. All decisions made regarding SMP logged in the online IMIS (SMP team members trained in using Woodside's online Incident Management System). SMP component input to the CIMT Incident Action Plan (IAP) as per the identified CIMT timed sessions and the SMP IAP logged on the online IMIS. Woodside Environmental Science Team provide awareness training on the activation and stand-up of the Scientific Monitoring Programme (SMP) for the Environment Advisers in Woodside who are listed on the SMP team on an annual basis. Woodside Environmental Science Team provide awareness training on the activation and stand-up of the Scientific Monitoring Programme (SMP) for the SMP standby contractor. Woodside Environmental Science Team co-ordinates an annual SMP arrangement testing exercise which the SMP standby contractor. SMP team participates in since 2016 (report on 2016 SMP simulation) and SMP standby contractor the SMP arrangements (people and equipment availability) tested annually since 2016. 	17.1	<ul style="list-style-type: none"> Woodside have established an SMP organisational structure and processes to stand up and deliver the SMP. 	<ul style="list-style-type: none"> SMP Oil Spill Scientific Monitoring Operational Plan SMP Implementation Plan SMP annual arrangement testing and reporting.

18	<ul style="list-style-type: none"> Chartered and mutual aid vessels. Suitable vessels would be secured from the Woodside support vessels, regional fleet of vessels operated by Woodside and other operators and the regional charter market. Vessel suitability will be guided by the need to be equipped to operate grab samplers, drop camera systems and water sampling equipment (the individual vessel requirements are outlined in the relevant SMP methodologies (refer to Table C-2, ANNEX C). Nearshore mainland waters could use the same approach as for open water. Smaller vessels may be used where available and appropriate. Suitable vehicles and machinery for onshore access to nearshore SMP locations would be provided by Woodside's transport services contract and sourced from the wider market. Dedicated survey equipment requirements for scientific monitoring range from remote towed video and drop camera systems to capture seabed images of benthic communities to intertidal/onshore surveying tools such as quadrats, theodolites and spades/trowels, cameras and binoculars (specific survey equipment requirements are outlined in the relevant SMP methodologies (refer to Table C-2, ANNEX C)). Equipment would be sourced through the existing SMP standby contract with SMP standby contractor for SMP resources and if additional surge capacity is required this would be available through the other Woodside Environmental Services Panel Contractors and specialist contractors. SMP standby contractor can also address equipment redundancy through either individual or multiple suppliers. MoUs are in place with one marine sampling equipment company and one analytical laboratory (SMP resourcing report register). Availability of SMP equipment for offshore/onshore scientific monitoring team mobilisation is within one week to ten days of the commencement of a hydrocarbon release. This meets the SMP mobilisation lead time that will support meeting the response objective of 'acquire, where practicable, the environmental baseline data prior to hydrocarbon contact required to support the post-response SMP. 	18.1	<p>Woodside maintains standby SMP capability to mobilise equipment required to conduct scientific monitoring programs SM01 – SM10 (except desktop based SM08):</p> <ul style="list-style-type: none"> Equipment are sourced through the existing standby contract with SMP standby contractor, as detailed within the SMP Implementation Plan. 	<ul style="list-style-type: none"> HSP Internal Control Environment tracks the quarterly review of the Oil Spill Contracts Master. SMP standby monthly resource reports of equipment availability provided by SMP contractor (SMP resourcing report register). SMP annual arrangement testing and reporting.
19	<p>Woodside's SMP approach addresses the pre-PAP acquisition of baseline data for Pre-emptive Baseline Areas (PBAs) with ≤10 days if required following a baseline gap analysis process.</p> <p>Woodside maintains knowledge of Environmental Baseline data through:</p> <ul style="list-style-type: none"> Documentation annual reviews of the Woodside Baseline Environmental Studies Database, and specific activity baseline gap analyses. Accessing external databases such as the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA) (refer to ANNEX C: Oil Spill Scientific Monitoring Program). 	19.1	<ul style="list-style-type: none"> Annual reviews of environmental baseline data PAP specific Pre-emptive Baseline Area baseline gap analysis. 	<ul style="list-style-type: none"> Annual review/update of Woodside Baseline Environmental Studies Database Desktop review to assess the environmental baseline study gaps completed prior to EP submission Accessing baseline knowledge via the SMP annual arrangement testing.

Environmental Performance Outcome		SMP plan to acquire response phase monitoring targeting pre-emptive baseline data achieved	
Control measure		Performance Standard	Measurement Criteria
20	<p>Woodside's SMP approach addresses:</p> <ul style="list-style-type: none"> Scientific data acquisition for PBAs >10 days to hydrocarbon contact and activated in the response phase and Transition into post-response SMP monitoring. 	<p>20.1 Pre-emptive Baseline Area (PBA) baseline data acquisition in the response phase</p> <p>If baseline data gaps are identified for PBAs predicted to have hydrocarbon contact in >10 days, there will be a response phase effort to collect baseline data. Priority in implementing SMPs will be given to receptors where pre-emptive baseline data can be acquired or improved.</p> <p>SMP team (within the Environment Unit of the CIMT) contribute SMP component of the CIMT Planning Section in development of the IAP.</p>	<ul style="list-style-type: none"> Response SMP plan Woodside's online Incident Management System Records SMP component of the Incident Action Plan.
		<p>20.2 Post Spill contact</p> <p>For the receptors contacted by the spill in where baseline data are available, SMPs programs to assess and monitor receptor condition will be implemented post spill (i.e. after the response phase):</p>	<ul style="list-style-type: none"> SMP planning document SMP Decision Log Incident Action Plans (IAPs).

Environmental Performance Outcome		Implementation of the SMP (response and post-response phases).		
Control measure		Performance Standard		Measurement Criteria
21	<ul style="list-style-type: none"> Scientific monitoring will address quantitative assessment of environmental impacts of a level 2 or 3 spill or any release event with the potential to contact sensitive environmental receptors. The SMP comprises ten targeted environmental monitoring programs. SMP supporting documentation: 1. Oil Spill Scientific Monitoring Operational Plan; (2) SMP Implementation Plan and (3) SMP Process and Methodologies Guideline. The Oil Spill Scientific Monitoring Operational Plan details the process of SMP selection, input to the IAP to trigger operational logistic support services. Methodology documents for each of the ten SMPs are accessible detailing equipment, data collection techniques and the specifications required for the survey platform support. The SMP standby contractor holds a Woodside SMP implementation plan detailing activation processes, linkage with the Woodside SMP team and the general principles for the planning and mobilisation of SMPs to deliver the individual SMPs activated. Monthly resourcing report are issued by the SMP standby contractor (SMP resourcing report register. All SMP documents and their status are tracked via SMP document register. 	21.1	Implementation of SM01 SM01 will be implemented to assess the presence, quantity and character of hydrocarbons in marine waters during the spill event in nearshore areas	Evidence SM01 has been triggered: <ul style="list-style-type: none"> Documentation as per requirements of the SMP Operational Plan Woodside's online Incident Management System Records. SMP component of the IAP SMP data records from field
		21.2	Implementation of SM02-SM10 SM02-SM10 will be implemented in accordance with the objectives and activation triggers as per Table C-2 of Annex C.	Evidence SMPs have been triggered: <ul style="list-style-type: none"> Documentation as per requirements of the SMP Operational Plan Woodside's online Incident Management System Records. SMP component of the IAP SMP Data records from field
		21.3	Termination of SMP plans The Scientific Monitoring Program will be terminated in accordance with termination triggers for the SMP's detailed in Table C-2 of Annex C, and the Termination Criteria Decision-tree for Oil Spill Environmental Monitoring (Figure C-3 of Annex C).	Evidence of Termination Criteria triggered: <ul style="list-style-type: none"> Documentation and approval by relevant persons/ organisations to end SMPs for specific receptor types.

5.6 Incident Management System

The Incident Management System is both a control measure and a measurement criteria. As a control measure the IMS function is to prompt, facilitate and record the completion of three key response planning processes detailed below. As a measurement criteria the IMS records the evidence of the timeliness of all response actions included in the environmental performance standards and the plans used of the PAP.

As the IMS does not directly remove hydrocarbons spilt into the marine environment there is no direct relationship to the response planning need.

5.6.1 Incident action planning

The CIMT will be required to collect and interpret information from the scene of the incident to determine support requirements to the site-based IMT, develop an incident action plan (IAP) and assist the IMT with the execution of that plan. The site-based IC may request the CIMT to complete notifications internally within Woodside, to relevant persons/ organisations and government agencies as required. Depending on the type and scale of the incident either the CIMT DM or IC will be responsible for ensuring the development of the IAP. Incident Action Planning is an ongoing process that involves continual review to confirm techniques to control the incident are appropriate to the situation at the time.

5.6.2 Operational NEBA process

In the event of a response Woodside will confirm that the response techniques adopted at the time of Environment Plan/ Oil Pollution Emergency Plan (EP/ OPEP) acceptance remain appropriate to reduce the consequences of the spill. This process verifies that there is a continuing net environmental benefit associated with continuing the response technique through the operational NEBA process. This process manages the environmental risks and impacts of response techniques during the spill response, an operational NEBA will be undertaken throughout the response, for each operational period.

The operational NEBA will consider the risks and benefits of conducting and response activity. For example, if vessels are required for access to nearshore or onshore areas, anchoring locations will be selected to minimise disturbance to benthic habitats. Vessel cleanliness would be commensurate with the receiving environment. The operational NEBA will consider the risks and benefits of conducting other response techniques.

The operational NEBA process is also used to terminate a response. Using data from operational and scientific monitoring activities the response to a hydrocarbon spill will be terminated in accordance with the termination process outlined in the Oil Pollution Emergency Arrangements (Australia). In effect the operational NEBA will determine whether there is net environmental benefit to continue response operations.

5.6.3 Consultation engagement process

Woodside will ensure persons/ organisations are engaged during the spill response in accordance with internal standards. This process requires that Woodside will:

- Undertake all required notifications (including government notifications) for persons/ organisations in the region (identified in the First Strike Plan). This includes notification to mariners to communicate navigational hazards introduced through response equipment and personnel.
- In the event of a response, identify and engage with relevant persons/ organisations and continually assess and review.

5.6.4 Environmental performance based on need

Table 5-9: Environmental Performance – Incident Management System

Environmental Performance Outcome		To support the effectiveness of all other control measures and monitor/record the performance levels achieved.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
21	Operational SIMA	21.1	Confirm that the response techniques adopted at the time of acceptance remain appropriate to reduce the consequences of the spill within 24 hours.	1, 3A
		21.2	Record the evidence and justification for any deviation from the planned response activities.	
		21.3	Record the information and data from operational and scientific monitoring activities used to inform the SIMA.	
22	Stakeholder engagement	22.1	Prompt and record all notifications (including government notifications) for persons/ organisations in the region are made.	
		22.2	In the event of a response, identification of relevant persons/ organisations will be re-assessed throughout the response period.	
		22.3	Undertake communications in accordance with: <ul style="list-style-type: none"> • Functional Support Team Guideline – Reputation • External Communication and Continuous Disclosure Procedure • External Stakeholder Engagement Procedure. 	
23	Personnel required to support any response	23.1	Action planning is an ongoing process that involves continual review to ensure techniques to control the incident are appropriate to the situation at the time.	1, 3B
		23.2	A duty roster of trained and competent people will be maintained to ensure that minimum manning requirements are met all year round.	3C
		23.3	Immediately activate the CIMT with personnel filling one or more of the following roles: <ul style="list-style-type: none"> • CIMT Incident Commander • CIMT Deputy Incident Commander • Operations Section Chief • Planning Section Chief • Logistics Section Chief • Documentation Unit Leader • Safety Officer • Environment Unit Leader • Human Resources Officer • Public Information Officer • Situation Unit Leader • Finance Section Chief • Source Control Section Chief. 	1, 2, 3B, 3C, 4
		23.4	Collect and interpret information from the scene of the incident to determine support requirements to the site-based IMT, develop an Incident Action Plan (IAP) and assist with the execution of that plan.	

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Environmental Performance Outcome		To support the effectiveness of all other control measures and monitor/record the performance levels achieved.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
		23.5	S&EM advisors will be integrated into CIMT to monitor performance of all functional roles.	
		23.6	Continually communicate the status of the spill and support Woodside to determine the most appropriate response by delivering on the responsibilities of their role.	
		23.7	Follow the OPEA, Operational Plans, FSPs, support plans and the IAPs developed.	1, 2, 3A, 4
		23.8	Contribute to Woodside's response in accordance with the aims and objectives set by the Incident Commander.	1, 2, 3B, 3C, 4

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5.7 Measurement criteria for all response techniques

Woodside verifies compliance with environmental performance outcomes and standards through four primary mechanisms. The aforementioned performance tables identify which of these four mechanisms monitors the readiness and records the effectiveness and performance of the control measures adopted.

1. The Incident Management System

The Incident Management System (IMS) supports the implementation of the Emergency and Crisis Management Procedure. The IMS provides a near real-time, single source of information for monitoring and recording an incident and measuring the performance of those control measures.

The Emergency and Crisis Management Procedure defines the management framework, including roles and responsibilities, to be applied to any size incident (including hydrocarbon spills). The organisational structure required to manage an incident is developed in a modular fashion and is based on the specific requirements of each incident. The structure can be scaled up or down.

The Incident Action Plan (IAP) process formally documents and communicated the:

- Incident objectives
- Status of assets
- Operational period objectives
- Response techniques (defined during response planning)
- The effectiveness of response techniques.

The information captured in the IMS (including information from personal logs and assigned tasks/close outs) confirms the response techniques implemented remain appropriate to reduce the consequences of the spill. The system also records all information and data that can be used to support the site-based IMT, development and the execution of the IAP.

2. The S&EM Competency Dashboard

The S&EM competency dashboard records the number of trained and competent responders that are available across Woodside, and some external providers, to participate in a response.

This number varies dependent on expiry of competency certificates, staff attrition, internal rotations, leave and other absences. As such the Dashboard is designed to identify the minimum manning requirements and to identify sufficient redundancy to cater for the variances listed above.

Figure 5-2 shows the minimum manning numbers for the different hydrocarbon spill response roles and the number of qualified persons against those roles.

Woodside's pool of trained responders is composed of but not limited to personnel from the following organisations:

- Woodside internal
- Australian Marine Oil Spill Centre (AMOSC) core group
- AMOSC
- Oil Spill Response Limited (OSRL)
- Marine Spill Response Corporation (MSRC)
- AMSA
- Woodside contracted workforce

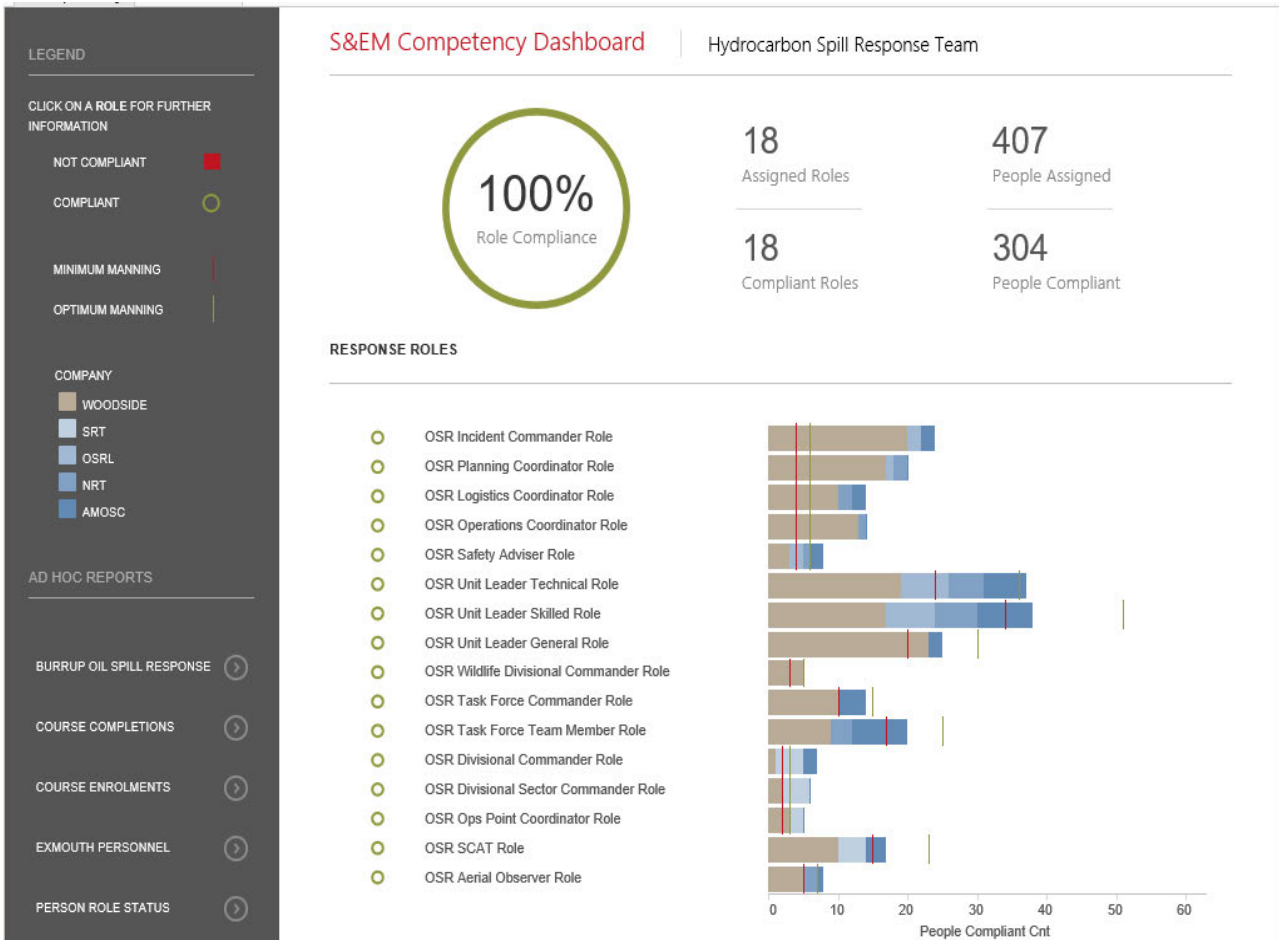


Figure 5-2: Example screen shot of the HSP competency dashboard

The Dashboard is one of Woodside’s key means of monitoring its readiness to respond. It also and shows that Woodside can meet the requirements of the environmental performance standard that relate to filling certain response roles.

Figure 5-3 shows deeper dive into the Ops Point Coordinator role and the training modules required to show competence.

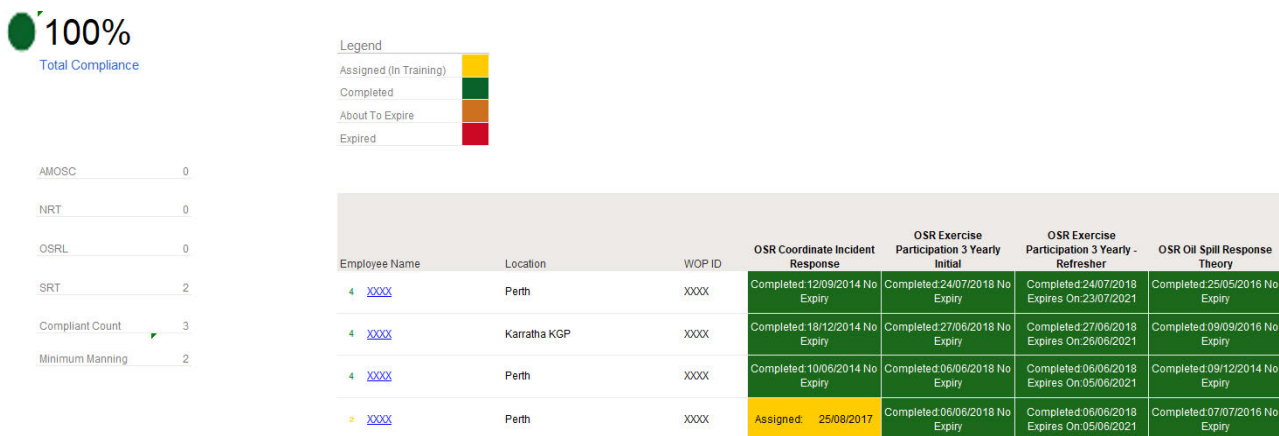


Figure 5-3: Example screen shot for the Ops Point Coordinator role

3. The Hydrocarbon Spill Preparedness ICE Assurance Process

The Hydrocarbon Spill Response Team has developed a Hydrocarbon Spill Preparedness and Response Internal Control Environment (ICE) process to align and feed into the Woodside

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Management System Assurance process for hydrocarbon spill. The process tracks compliance over four key control areas:

- a) **Plans** – Ensures all plans (including: Oil Pollution Emergency Arrangements, first strike plans, operational plans, support plans and tactical response plans) are current and in line with regulatory and internal requirements.
- b) **Competency** – Ensures the competency dashboard is up to date and there are the minimum competency numbers across CIMT, CMT and hydrocarbon spill response roles. The hydrocarbon spill training plan and exercise schedule, including testing of arrangements is also tracked. The Testing of Arrangements (TOA) register tracks the testing of all hydrocarbon spill response arrangements, key contracts and agreements in place with internal and external parties to ensure compliance.
- c) **Capability** – Tracks and monitors capability that could be required in a hydrocarbon incident, including but not limited to: integrated fleet⁷ vessel schedule, dispersant availability, rig/vessels monitoring, equipment stockpiles, tracking buoy locations and the CIMT duty roster.
- d) **Compliance and Assurance** – Ensures all regulator inspection outcomes are actioned and closed out, the global legislation register is up to date and that the key assurance components are tracked and managed. Assurance activities (including Audits) conducted on memberships with key Oil Spill Response Organisations (OSROs) including AMOSC and OSRL are also tracked and recorded in the ICE.

The ICE assurance process records how each commitment listed in the performance tables above is managed to ensure ongoing compliance monitoring. The level of compliance can be reviewed in real time and is reported on a monthly basis through the S&EM Function.

The completion of the assurance checks (over and above the ICE process) is also applied via the Woodside Integrated Risk and Compliance System (WiRCs) and subject to the requirements of Woodside's Provide Assurance Procedure.

4. The Hydrocarbon Spill Preparedness and Response Procedure

This procedure sets out how to plan and prepare for a liquid hydrocarbon spill to the marine environment. (Note, this procedure does not apply to scenarios relating to gas releases in the marine environment).

This procedure details the:

- Requirement for an Oil Pollution Emergency Plan (OPEP) to be developed, maintained, reviewed, and approved by appropriate regulators (where applicable) including:
 - Defining how spill scenarios are developed on an activity specific basis
 - Developing and maintaining all hydrocarbon spill related plans
 - Ensuring the ongoing maintenance of training and competency for personnel
 - Developing the testing of spill response arrangements
 - Maintaining access to identified equipment and personnel.
- Planning for hydrocarbon spill response preparedness
- Accountabilities for hydrocarbon spill response preparedness
- Spill training requirements
- Requirements for spill exercising / testing of spill response arrangements
- Spill equipment and services requirements.

The procedure also details the roles and responsibilities of the dedicated Woodside Hydrocarbon Spill Preparedness team. This team is responsible for:

⁷ The Integrated fleet consists of vessels from multiple operators that have been contracted to Woodside to undertake a number of duties including hydrocarbon spill response

- Assuring that Woodside hydrocarbon spill responders meet competency requirements.
- Establishing the competency requirements, annual training schedule and a training register of trained personnel.
- Establishing and maintaining the total numbers of trained personnel required to provide an effective response to any hydrocarbon spill incident.
- Ensuring equipment and services contracts are maintained.
- Establishing OPEPs.
- Establishing OPEAs.
- Priority response receptor determination.
- ALARP determination.
- Ensuring compliance and assurance is undertaken in accordance with external and internal requirements.

6 ALARP EVALUATION

This Section should be read in conjunction with Section 5 which is the capability planned for this activity.

6.1 Operational Monitoring – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

6.1.1 Operational Monitoring – Control Measure Options Analysis

6.1.1.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Aerostat (or similar inflatable observation platform) for localised aerial surveillance.	Lead time to Aerostat surveillance is disproportionate to the environmental benefit. The system also provides a very limited field of visibility around the vessel it is deployed from.	Long lead time to access (>10 days). Each system would require an operator to interpret data and direct vessels accordingly. Requires multiple systems for shoreline use.	Purchase cost per system approx. \$300,000.	This option is not adopted as the minimal environmental benefit gained is disproportionate to the cost and complexity of its implementation.	No
Use of Autonomous Underwater Vehicles (AUVs) for hydrocarbon presence and detection.	Use of AUVs may be feasible and may provide an environmental benefit in assessing inaccessible areas for presence of hydrocarbons in the water however cost of purchase is disproportionate to the environmental benefit when compared to the monitoring types in place.	AUVs may be considered as an additional method of monitoring, should remote systems be required for health and safety reasons.	Cost \$10,000 for mobilisation and \$15,000 a day when deployed.		No

6.1.1.2 Additional Control Measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Additional personnel trained to use systems.	Current arrangement provides an environmental benefit in the availability of trained personnel facilitating access to monitoring data used to inform all other response techniques. No improvement required.	No improvement can be made, all personnel in technical roles e.g. intelligence unit are trained and competent on the software systems. Personnel are trained and exercised regularly. Use of the software and systems forms part of regular work assignments and projects.	Cost for training in-house staff would be approx. \$25,000.	This option is not adopted as the current capability meets the need.	No
Additional satellite tracking buoys to enable greater area coverage.	Increased capability does not provide an environmental benefit compared to the disproportionate cost in having an additional contract in place.	Tracking buoy on location at manned facility, additional needs are met from WEL owned stocks in King Bay Support Facility (KBSF) and Exmouth or can be provided by service provider.	Cost for an additional satellite tracking buoy would be \$200 per day or \$6,000 to purchase.	This option is not adopted as the current capability meets the need, but additional units are available if required.	No
Additional trained aerial observers.	Current capability meets need. WEL has access to a pool of trained, competent observers at strategic locations to ensure timely and sustainable response. Additional observers are available through current contracts with AMOSC and OSRL.	Current capability meets need. WEL has a pool of trained, competent observers at strategic locations to ensure timely and sustainable response. Additional observers are available through current contracts with AMOSC and OSRL Aviation standards & guidelines ensure all aircraft crews are competent for their roles. WEL maintains a pool of trained and competent aerial	Cost for additional trained aerial observers would be \$2,000 per person per day.	This option is not adopted as the current capability meets the need, but additional observers are available via	No

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		observers with various home base locations to be called upon at the time of an incident. Regular audits of oil spill response organisations ensure training and competency is maintained.		response contractors if required.	
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6.1.1.3 Improved Control Measures

Improved Control Measures considered					
<i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster turnaround time from modelling contractor.	Improved control measure does not provide an environmental benefit compared to the disproportionate cost in having an additional contract in place.	External contractor on CIMT roster to be called as soon as required. However initial information needs to be gathered by CIMT team to request an accurate model. External contractor has person on call to respond from their own location.	Modelling service with a faster activation time would be achieved via membership of an alternative modelling service at an annual cost of \$50,000 for 24hr access plus an initial \$5,000 per modelling run.	This option is not adopted as the minimal environmental benefit gained is disproportionate to the cost and complexity of its implementation.	No
Night time aerial surveillance.	The risk of undertaking the aerial observations at night is disproportionate to the limited environmental benefit. The images would be of low quality and as such the variable is not adopted.	Flights will only occur when deemed safe by the pilot. The risk of night operations, is disproportionate to the benefit gained, as images from sensors (IR, UV, etc). will be low quality. Flight time limitations will be adhered to.	No improvement can be made without risk to personnel health and safety and breaching Woodside's golden rules.	This option is not adopted as the safety considerations outweigh any environmental benefit gained.	No
Faster mobilisation time (for water quality monitoring).	Due to the restriction on accessing the spill location on Day one there is no environmental benefit in having vessels available from day one. The cost of having dedicated equipment and personnel is disproportionate to the environmental benefit. The availability of vessels and personnel meets the response need. Shortening the timeframes for vessel availability would require dedicated response vessels on standby in KBSF. The cost and organisational complexity of employing two dedicated response vessels (approximately \$15M/year per vessel) is considered disproportionate to the potential environmental benefit realised by adopting this delivery options.	Operations are not feasible on day 1 as the hydrocarbon will take time to surface, and volatility has potential to cause health concerns within the first 24 hours of the response.	Further to the standby vessel costs, purchase of required equipment would be approximately \$200,000. Ongoing costs per annum for hire and pre-positioning, for life of asset/activity, would be larger than the purchase cost. For the associated dedicated equipment plus personnel living locally on short-notice mobilisation, the cost would be approximately \$1M per annum, which is disproportionate to the incremental benefit this would provide. Assets are already available on day one. Two integrated fleet vessels are available from day one, however these could be tasked with other operations.	This option is not adopted as the area could not be accessed earlier due to safety considerations. Additionally, the cost and complexity of implementation outweighs the benefits.	No

6.1.2 Selected Control Measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
 - None selected
- Additional
 - None selected
- Improved
 - None selected

6.2 Source Control via Vessel SOPEP – ALARP Assessment

Alternative, Additional and Improved options have been assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

6.2.1 Source Control via Vessel SOPEP – Control Measure Options Analysis

6.2.1.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical alternative control measures identified					

6.2.1.2 Additional Control Measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical additional control measures identified					

6.2.1.3 Improved Control Measures

Improved Control Measures considered <i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical improved control measures identified					

6.2.2 Selected control measures

Following review of alternative, additional and improved control measures, the following controls were selected for implementation for the PAP.

- Alternative
 - None selected
- Additional
 - None selected
- Improved
 - None selected

6.3 Oiled Wildlife Response – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in **Section 5** with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

6.3.1 Existing Capability – Wildlife Response

Woodside’s existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability presented below is displayed as ranges to incorporate operational factors such as weather, crew/vessel/aircraft/vehicle location and duties, survey or classification society inspection requirements, overflight/port/quarantine permits and inspections, crew/pilot duty and fatigue hours, refuelling/re-stocking provisions, and other similar logistic and operational limitation that are beyond Woodside’s direct control.

6.3.2 Oiled Wildlife Response – Control Measure Options Analysis

6.3.2.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Direct contracts with service providers	This option duplicates the capability accessed through AMOSC and OSRL and would compete for the same resources. Does not provide a significant increase in environmental benefit.	These delivery options provide increased effectiveness through more direct communication and control of specialists. However, no significant net benefit is anticipated.	Duplication of capability – already subscribed to through contracts with AMOSC and OSRL.	This option is not adopted as the existing capability meets the need.	No

6.3.2.2 Additional Control Measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Additional wildlife treatment systems	<p>The selected delivery options provide access to call-off contracts with selected specialist providers. The agreements ensure that these resources can be mobilised to meet the required response objectives, commensurate with the progressive nature of environmental impact and the time available to monitor hydrocarbon plume trajectories.</p> <p>Provides response equipment and personnel by Day 3. The additional cost in having a dedicated oiled wildlife response (equipment and personnel) in place is disproportionate to environmental benefit.</p> <p>These selected delivery options provide capacity to carry out an oiled wildlife response if contact is predicted; and to scale up the response if required to treat widespread contamination.</p> <p>Current capability meets the needs required and there is no additional environmental benefit in adopting the improvements.</p>	<p>Although hydrocarbon contact above oiled wildlife response threshold concentrations (>10 g/m²) with offshore waters is expected from day one (CS-01), given the low likelihood of such an event occurring and that the current capability meets the need, the cost of implementing measures to reduce the mobilisation time is considered disproportionate to the benefit. Additionally, the remote offshore location of the release site, with no contact predicted at shoreline response thresholds (>100 g/m²), provides sufficient opportunity for the ongoing monitoring and surveillance operations to inform the scale of the response.</p> <p>Numbers of oiled wildlife are expected to be low in the remote offshore setting of the oiled wildlife response, given the distance from known aggregation areas.</p> <p>Oiled wildlife response capacity would be addressed for open Commonwealth waters through the AMOSC arrangements, as informed by operational monitoring.</p> <p>The cost and organisational complexity of this approach is moderate, and the overall delivery effectiveness is high.</p>	Additional wildlife response resources could total A\$1,700 per operational site per day.	This option is not adopted as the existing capability meets the need.	No

Additional trained wildlife responders	Numbers of oiled wildlife are expected to be low in the remote offshore setting of the oiled wildlife response, given the distance from known aggregation areas. The potential environmental benefit of training additional personnel is expected to be low.	Current numbers meet the needs required and additional personnel are available through existing contracts with oil spill response organisations and environmental panel contractors. Additional equipment and facilities would be required to support ongoing response, depending on the scale of the event and the impact to wildlife and maybe sourced via existing contracts with OSROs. Materials for holding facilities, portable pools, enclosures and rehabilitation areas would be sourced as required.	Additional wildlife response personnel cost A\$2,000 per person per day.	This option is not adopted as the existing capability meets the need.	No
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6.3.2.3 Improved Control Measures

Improved Control Measures considered					
<i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster mobilisation time for wildlife response	Response time is limited by specialist personnel mobilisation time. Current timing is sufficient for expected first shoreline contact. This control measure provides increased effectiveness through faster mobilisation of specialists. However, no significant net environmental benefit is expected due to shoreline stranding times.	Pre-positioning vessels or equipment would reduce mobilisation time for oiled wildlife response activities. However, given the effectiveness of an oiled wildlife response is expected to be low, an earlier response would provide a marginal increase in environmental benefit.	Wildlife response packages to preposition at vulnerable sites identified through the deterministic modelling cost A\$700 per package per day. The cost of having dedicated equipment and personnel available to respond faster is considered disproportionate to the environmental benefit.	This option is not adopted as the existing capability meets the need.	No

6.3.3 Selected control measures

Following review of alternative, additional and improved control measures, the following controls were selected for implementation for the PAP.

- Alternative
 - None selected
- Additional
 - None selected
- Improved
 - None selected

6.4 Waste Management – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

6.4.1 Existing Capability – Waste Management

Woodside’s existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability presented below is displayed as ranges to incorporate operational factors such as weather, crew/vessel/aircraft/vehicle location and duties, survey or classification society inspection requirements, overflight/port/quarantine permits and inspections, crew/pilot duty and fatigue hours, refuelling/re-stocking provisions, and other similar logistic and operational limitation that are beyond Woodside’s direct control.

6.4.2 Waste Management - Control Measure Options Analysis

6.4.2.1 Alternative Control Measures

Alternative Control Measures considered					
<i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical alternative control measures identified.					

6.4.2.2 Additional Control Measures

Additional Control Measures considered					
<i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Increased waste storage capability	The procurement of waste storage equipment options on the day of the event will allow immediate response and storage of collected waste. The environmental benefit of immediate waste storage is to reduce ecological consequence by safely securing waste, allowing continuous response operations to occur.	Access to Veolia’s storage options provides the resources required to store and transport sufficient waste to meet the need. Access to waste contractors existing facilities enables waste to be stockpiled and gradually processed within the regional waste handling facilities. Additional temporary storage equipment is available through existing contract and arrangements with OSRL. Existing arrangements meet identified need for the PAP.	Cost for increased waste disposal capability would be approx. A\$1,300 per m ³ . Cost for increased onshore temporary waste storage capability would be approx. A\$40 per unit per day.	This option is not adopted as the existing capability meets the need.	No

6.4.2.3 Improved Control Measures

Improved Control Measures considered					
<i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster response time	The access to Veolia waste storage options provides the resources to store and transport waste, permitting the wastes to be stockpiled and gradually processed within the regional waste handling facilities. Bulk transport to Veolia’s licensed waste management facilities would be undertaken via controlled-waste-licensed vehicles and in accordance with Environmental Protection (Controlled Waste) Regulations 2004.	Woodside already maintains an equipment stockpile in Exmouth to enable shorter response times to incidents. This stockpile includes temporary waste storage equipment. Woodside has access to stockpiles of waste storage and equipment in Dampier and Exmouth through existing contracts and arrangements.	The incremental benefit of having a dedicated local Woodside owned stockpile of waste equipment and transport is considered minor and cost is considered disproportionate to the benefit gained given predicted shoreline contact times.	This option is not adopted as the existing capability meets the need.	No

	<p>The environmental benefit from successful waste storage will reduce pressure on the treatment and disposal facilities reducing ecological consequences by safely securing waste. In addition, waste storage and transport will allow continuous response operations to occur.</p> <p>This delivery option would increase known available storage, eliminating the risk of additional resources not being available at the time of the event. However, the environmental benefit of Woodside procuring additional waste storage is considered minor as the risk of additional storage not being available at the time of the event is considered low and existing arrangements provide adequate storage to support the response.</p>				
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6.4.3 Selected control measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
 - None selected
- Additional
 - None selected
- Improved
 - None selected

6.5 Scientific Monitoring – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

6.5.1 Existing Capability – Scientific Monitoring

Woodside's existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability presented below is displayed as ranges to incorporate operational factors such as weather, crew/ vessel/ aircraft/ vehicle location and duties, survey or classification society inspection requirements, overflight/ port/ quarantine permits and inspections, crew/ pilot duty and fatigue hours, refuelling/ re-stocking provisions, and other similar logistic and operational limitation that are beyond Woodside's direct control.

6.5.2 Scientific Monitoring – Control Measure Options Analysis

6.5.2.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Analytical laboratory facilities closer to the likely spill affected area.	The environmental consideration of having access to suitable laboratory facilities in Karratha or Exmouth to carry out the hydrocarbon analysis would provide faster turnaround in reporting of results only by a matter days (as per the time to transport samples to laboratories).	SM01 water quality monitoring requires water samples to be transported to NATA-rated laboratories in Perth or over to the East coast. Consider the benefit of laboratory access and transportation times to deliver water samples and complete lab analysis. There is a time lag from collection of water samples to being in receipt of results and confirming hydrocarbon contact to sensitive receptors).	Laboratory facilities and staff available at locations closer to the spill affected area can reduce reporting times only to a moderate degree (days) with associated high costs of maintaining capability do not improve the environmental benefit.	This control measure is not adopted as the costs and complexity are considered disproportionate to any environmental benefit that might be realised.	No
Dedicated contracted SMP vessel (exclusive to Woodside).	Would provide faster mobilisation time of scientific monitoring resources, however, the environmental benefit associated with faster mobilisation time would be minor compared to selected options.	Chartering and equipping additional vessels on standby for scientific monitoring has been considered. The option is reasonably practicable but the sacrifice (charter costs and organisational complexity) is significant, particularly when compared with the anticipated availability of vessels and resources within in the required timeframes. The selected delivery provides capability to meet the scientific monitoring objectives, including collection of pre-emptive data where baseline knowledge gaps are identified for receptor locations where spill predictions of time to contact are >10 days. The effectiveness of this alternative control (weather dependency, availability and survivability) is rated as very low.	The cost and organisational complexity of employing a dedicated response vessel is considered disproportionate to the potential environmental benefit by adopting these delivery options.	This control measure is not adopted as the costs and complexity are considered disproportionate to any environmental benefit that might be realised.	No

6.5.2.2 Additional control measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Determine baseline data needs and provide implementation plan in the event of an unplanned	Address resourcing needs to collect post spill (pre-contact) baseline data as spill expands in the event of a loss of well control from the PAP activities.	As part of Woodside's Scientific Monitoring Program the following are considered and incorporated into the spill response approach and the SMP Standby Service contract. <ul style="list-style-type: none"> Woodside rely on existing environmental baseline for receptors which have predicted hydrocarbon contact (above 	No cost associated with baseline for SM01.	This control measure is adopted as the costs and complexity are not disproportionate to any environmental benefit that might be realised.	Yes

hydrocarbon release.		environment threshold) <10 days and acquiring pre-emptive data in the event of a loss of well control from the PAP activities based on receptors predicted to have hydrocarbon contact >10 days. <ul style="list-style-type: none"> • Ensure there is appropriate baseline for key receptors for all geographic locations that are potentially impacted <10 days of spill event. • Address resourcing needs to collect pre-emptive baseline as spill expands in the event of a spill of MDO from the PAP activities. • For SM01 pre-emptive baseline is not required as marine water quality is assumed to be pristine. 			
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6.5.2.3 Improved Control Measures considered

Improved Control Measures considered					
<i>Improved, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical improved control measures identified.					

6.5.3 Selected Control Measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
 - None selected
- Additional
 - Determine baseline data needs and provide implementation plan in the event of an unplanned hydrocarbon release
- Improved
 - None selected

6.5.4 Operational Plan

Key actions from the Scientific Monitoring Program Operational Plan for implementing the response are outlined in **Table 6-1**.

Table 6-1: Scientific monitoring program operational plan actions

Responsibility	Action
Activation	
CIMT Planning (CIMT Planning – Environment Unit)	Mobilises SMP Lead/Manager and SMP Coordinator to the CIMT Planning Section.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager and SMP Coordinator)	Constantly assesses all outputs from OM01, OM02 and OM03 (Annex B) to determine receptor locations and receptors at risk. Confirm sensitive receptors likely to be exposed to hydrocarbons, timeframes to specific receptor locations and which SMPs are triggered. Review baseline data for receptors at risk.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager and SMP Coordinator)	SMP co-ordinator stands up SMP Standby contractor. Stands up subject matter experts, if required.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager, SMP Coordinator, SMP Standby contractor)	Establish if, and where, pre-contact baseline data acquisition is required. Determines practicable baseline acquisition program based on predicted timescales to contact and anticipated SMP mobilisation times. Determines scope for preliminary post-contact surveys during the Response Phase. Determines which SMP activities are required at each location based on the identified receptor sensitivities.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager, SMP Coordinator, SMP Standby contractor)	If response phase data acquisition is required, stand up the contractor SMP teams for data acquisition and instruct them to standby awaiting further details for mobilisation from the IMT.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager, SMP Coordinator, SMP Standby contractor)	SMP standby contractor, to prepare the Field Implementation Plan. Prepare and obtain sign-off of the Response Phase SMP work plan and Field Implementation Plan. Update the IAP.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager, SMP Coordinator, SMP Standby contractor)	Liaise with CIMT Logistics, and determine the status and availability of aircraft, vessels and road transportation available to transport survey personnel and equipment to point of departure. Engage with SMP standby contractor, SMP Manager and CIMT Logistics to establish mobilisation plan, secure logistics resources and establish ongoing logistical support operations, including: <ul style="list-style-type: none"> • Vessels, vehicles and other logistics resources

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Responsibility	Action
	<ul style="list-style-type: none"> • Vessel fit-out specifications (as detailed in the Scientific Monitoring Program Operational Plan • Equipment storage and pick-up locations • Personnel pick-up/airport departure locations • Ports of departure • Land based operational centres and forward operations bases, Accommodation and food requirements.
CIMT Planning (CIMT Planning – Environment Unit) (SMP Lead/Manager, SMP Coordinator, SMP Standby contractor)	Confirm communications procedures between Woodside SMP team, SMP standby contractor, SMP Team Leads and Operations Point Coordinator.
Mobilisation	
CIMT Logistics	Engage vessels and vehicles and arrange fitting out as specified by the mobilisation Plan Confirm vessel departure windows and communicate with the Jacob's SMP Manager. Agree SMP mobilisation timeline and induction procedures with the Division and Sector Command Point(s).
CIMT Logistics	Coordinate with SMP standby contractor to mobilise teams and equipment according to the logistics plan and Sector induction procedures.
SMP Survey Team Leads	SMP Survey Team Leader(s) coordinate on-ground/on-vessel mobilisations and support services with the Sector Command point(s).

6.5.5 ALARP and Acceptability Summary

ALARP and Acceptability Summary		
Scientific Monitoring		
ALARP Summary	x	All known reasonably practicable control measures have been adopted
	x	No additional, alternative and improved control measures would provide further benefit
		No reasonably practical additional, alternative, and/or improved control measure exists
<p>The resulting scientific monitoring capability has been assessed against the credible spill scenarios. The range of techniques provide an ongoing approach to monitoring operations to assess and evaluate the scale and extent of impacts.</p> <p>All known reasonably practicable control measures have been adopted with the cost and organisational complexity of these options determined to be Moderate and the overall delivery effectiveness considered Medium. The SMP's main objectives can be met, with the addition of one alternative control measures to provide further benefit.</p>		
Acceptability Summary	<ul style="list-style-type: none"> • The control measures selected for implementation manage the potential impacts and risks to ALARP. • In the event of a hydrocarbon spill for the PAP, the control measures selected, meet or exceed the requirements of Woodside Management System and industry best-practice. • Scientific Monitoring control and activities are compliant with relevant environmental legislation and regulations, including the EPBC Act. • Throughout the PAP, relevant Australian standards and codes of practice will be followed to evaluate the impacts from a loss of well control. • Stakeholder consultation undertaken for the PAP did not receive feedback regarding concerns for Scientific Monitoring activities in response to a hydrocarbon spill. • The level of impact and risk to the environment has been considered with regards to the principles of Ecologically Sustainable Development; (ESD); and risks and impacts from a range of identified scenarios were assessed in detail. The control measures described consider the conservation of biological and ecological diversity, through both the selection of control and the management of their performance. The control measures have been developed to account for credible case scenarios, and uncertainty has not been used as a reason for postponing control measures. 	
<p>On the basis from the ALARP assessment, above and the risk assessment in the NWS and Julimar Exploration Wellhead Decommissioning EP, Woodside considers the adopted controls discussed manage the impacts and risks associated with implementing scientific monitoring activities to a level that is ALARP and acceptable.</p>		

7 ENVIRONMENTAL RISK ASSESSMENT OF SELECTED RESPONSE TECHNIQUES

The implementation of response techniques may modify the impacts and risks identified in the EP and response activities can introduce additional impacts and risks from response operations themselves. Therefore, it is necessary to complete an assessment to ensure these impacts and risks have been considered and specific measures are put in place to continually review and manage these further impacts and risks to ALARP and acceptable levels. A simplified assessment process has been used to complete this task which covers the identification, analysis, evaluation and treatment of impacts and risks introduced by responding to the event.

7.1 Identification of impacts and risks from implementing response techniques

Each of the control measures can modify the impacts and risks identified in the EP. These impacts and risks have been previously assessed within the scope of the EP. Refer to the EP for details regarding how these risks are being managed. They are not discussed further in this document.

- Atmospheric emissions
- Routine and non-routine discharges
- Physical presence, proximity to other vessels (shipping and fisheries)
- Routine acoustic emissions vessels
- Lighting for night work/navigational safety
- Invasive marine species
- Collision with marine fauna
- Disturbance to Seabed

Additional impacts and risks associated with the control measures not included within the scope of the EP include:

- Vessel operations and anchoring
- Human presence
- Additional stress or injury caused to wildlife
- Waste management.

7.2 Analysis of impacts and risks from implementing response techniques

The table below compares the adopted control measures for this activity against the environmental values that can be affected when they are implemented.

Table 7-1: Analysis of risks and impacts

	Environmental Value						
	Soil and Groundwater	Marine Sediment Quality	Water Quality	Air Quality	Ecosystems/Habitat	Species	Socio-Economic
Operational monitoring		✓	✓		✓	✓	
Source control		✓	✓	✓	✓	✓	✓
Oiled wildlife					✓	✓	
Scientific monitoring	✓	✓	✓	✓	✓	✓	✓
Waste management	✓	✓		✓	✓	✓	✓

7.3 Evaluation of impacts and risks from implementing response techniques

Vessel operations and anchoring

During the implementation of response techniques, where water depths allow, it is possible that response vessels will be required to anchor (e.g. during shoreline surveys or oiled wildlife response). The use of vessel anchoring will be minimal and likely to occur when the impacted shoreline is inaccessible via road. Anchoring in the nearshore environment of sensitive receptor locations will have the potential to impact coral reef, seagrass beds and other benthic communities in these areas. Recovery of benthic communities from anchor damage depends on the size of anchor and frequency of anchoring. Impacts would be highly localised (restricted to the footprint of the vessel anchor and chain) and temporary, with full recovery expected.

Human presence

Human presence for manual clean-up operations may lead to the compaction of sediments and damage to the existing environment especially in sensitive locations such as mangroves and turtle nesting beaches. However, any impacts are expected to be localised with full recovery expected.

Waste generation

Implementing the selected response techniques will result in the generation of the following waste streams that will require management and disposal:

- Liquids (recovered oil/water mixture), recovered during oiled wildlife response operations
- Semi-solids/solids (oily solids), collected during oiled wildlife response operations
- Debris (e.g. seaweed, sand, woods, plastics), collected during oiled wildlife response.

If not managed and disposed of correctly, wastes generated during the response have the potential for secondary contamination similar to that described above, impacts to wildlife through contact with or ingestion of waste materials and contamination risks if not disposed of correctly onshore.

Additional stress or injury caused to wildlife

Additional stress or injury to wildlife could be caused through the following phases of a response:

- Capturing wildlife
- Transporting wildlife
- Stabilisation of wildlife
- Cleaning and rinsing of oiled wildlife
- Rehabilitation (e.g. diet, cage size, housing density)
- Release of treated wildlife.

Inefficient capture techniques have the potential to cause undue stress, exhaustion or injury to wildlife, additionally pre-emptive capture could cause undue stress and impacts to wildlife when there are uncertainties in the forecast trajectory of the spill. During the transportation and stabilisation phases there is the potential for additional thermoregulation stress on captured wildlife. Additionally, during the cleaning process, it is important personnel undertaking the tasks are familiar with the relevant techniques to ensure that further injury and the removal of water proofing feathers are managed and mitigated. Finally, during the release phase it's important that wildlife is not released back into a contaminated environment.

7.4 Treatment of impacts and risks from implementing response techniques

In respect of the impacts and risks assessed the following treatment measures have been adopted. It must be recognised that this environmental assessment is seeking to identify how to maintain the level of impact and risks at levels that are ALARP and of an acceptable level rather than exploring further impact and risk reduction. It is for this reason that the treatment measures identified in this assessment will be captured in Operational Plans, Tactical Response Plans, and/or First Strike Plans.

Vessel operations and access in the nearshore environment

- If vessels are required for access, anchoring locations will be selected to minimise disturbance to benthic habitats. Where existing fixed anchoring points are not available, locations will be selected to minimise impact to nearshore benthic environments with a preference for areas of sandy seabed where they can be identified (Performance Standard (PS) 8.1).

Human Presence

- Shoreline access route (foot, car, vessel and helicopter) with the least environmental impact identified will be selected by a specialist in SCAT operations (PS 8.2)

Waste generation

- Zoning of response locations to prevent secondary contamination and minimize the mixing of clean and oiled sediment and shoreline substrates (PS 14.1).

Additional stress or injury caused to wildlife

- Oiled wildlife operations (including hazing) would be implemented with advice and assistance from the Oiled Wildlife Advisor from the DBCA, and in accordance with the processes and methodologies described in the WA OWRP and the relevant regional plan (PS 12.1).

8 ALARP CONCLUSION

An analysis of alternative, additional and improved control measures has been undertaken to determine their reasonableness and practicability. The tables in **Section 6** document the considerations made in this evaluation. Where the costs of an alternative, additional, or improved control measure have been determined to be clearly disproportionate to the environmental benefit gained from its adoption it has been rejected. Where this is not considered to be the case the control measure has been adopted.

The risks from a hydrocarbon spill have been reduced to ALARP because:

- Woodside has a significant hydrocarbon spill response capability to respond to the WCCS through the control measures identified.
- New and modified impacts and risks associated with implementing response techniques have been considered and will not increase the risks associated with the activity.
- A consideration of alternative, additional, and improved control measures identified any other control measures that delivered proportionate environmental benefit compared to the cost of adoption for this activity to confirm:
 - All known, reasonably practicable control measures have been adopted.
 - No additional, reasonably practicable alternative and/or improved control measures would provide further environmental benefit.
 - No reasonably practicable additional, alternative, and/or improved control measure exists.
- A structured process for considering alternative, additional, and improved control measures was completed for each control measure.
- The evaluation was undertaken based on the outputs of the WCCS so that the capability in place is sufficient for all other scenario from this activity.
- The likelihood of the WCCS spill has been ignored in evaluating what was reasonably practicable.

9 ACCEPTABILITY CONCLUSION

Following the ALARP evaluation process, Woodside deems the hydrocarbon spill risks and impacts have been reduced to an acceptable level by meeting all of the following criteria:

- Techniques are consistent with Woodside's processes and relevant internal requirements including policies, culture, processes, standards, structures and systems.
- Levels of risk/ impact are deemed acceptable by relevant persons/ organisations are aligned with the uniqueness of, and/or the level of protection assigned to the environment, its sensitivity to pressures introduced by the activity, and the proximity of activities to sensitive receptors, and have been aligned with Part 3 of the EPBC Act.
- Selected control measures meet requirements of legislation and conventions to which Australia is a signatory (e.g. MARPOL, the World Heritage Convention, the Ramsar Convention, and the Biodiversity Convention etc.). In addition to these, other non-legislative requirements met include:
 - Australian IUCN reserve management principles for Commonwealth marine protected areas and bioregional marine plans.
 - National Water Quality Management Strategy and supporting guidelines for marine water quality).
 - Conditions of approval set under other legislation.
 - National and international requirements for managing pollution from ships.
 - National biosecurity requirements.
- Industry standards, best practices and widely adopted standards and other published materials have been used and referenced when defining acceptable levels. Where these are inconsistent with mandatory/ legislative regulations, explanation has been provided for the proposed deviation. Any deviation produces the same or a better level of environmental performance (or outcome).

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11 GLOSSARY AND ABBREVIATIONS

11.1 Glossary

Term	Description / Definition
ALARP	Demonstration through reasoned and supported arguments that there are no other practicable options that could reasonably be adopted to reduce risks further.
Availability	The availability of a control measure is the percentage of time that it is capable of performing its function (operating time plus standby time) divided by the total period (whether in service or not). In other words, it is the probability that the control has not failed or is undergoing a maintenance or repair function when it needs to be used.
Control	The means by which risk from events is eliminated or minimised.
Control effectiveness	A measure of how well the control measures perform their required function.
Control measure (risk control measure)	The features that eliminate, prevent, reduce or mitigate the risk to environment associated with PAP.
Credible spill scenario	A spill considered by Woodside as representative of maximum volume and characteristics of a spill that could occur as part of the PAP.
Dependency	The degree of reliance on other systems in order for the control measure to be able to perform its intended function.
Environment that may be affected	The summary of quantitative modelling where the marine environment could be exposed to hydrocarbons levels exceeding hydrocarbon threshold concentrations.
Incident	An event where a release of energy resulted in or had (with) the potential to cause injury, ill health, damage to the environment, damage to equipment or assets or company reputation.
Major Environment Event	The events with potential environment, reputation, social or cultural consequences of category C or higher (as per Woodside's operational risk matrix) which are evaluated against credible worst-case scenarios which may occur when all controls are absent or have failed.
Performance outcome	A statement of the overall goal or outcome to be achieved by a control measure
Performance standard	The parameters against which [risk] controls are assessed to ensure they reduce risk to ALARP. A statement of the key requirements (indicators) that the control measure has to achieve in order to perform as intended in relation to its functionality, availability, reliability, survivability and dependencies.
Preparedness	Measures taken before an incident in order to improve the effectiveness of a response
Reasonably practicable	... a computation ... made by the owner, in which the quantum of risk is placed on one scale and the sacrifice involved in the measures necessary for averting the risk (whether in money, time or trouble) [showing whether or not] that there is a gross disproportion between them ... made by the owner at a point of time anterior to the accident. (Judgement: Edwards v National Coal Board [1949])
Receptors at risk	Physical, biological and social resources identified as at risk from hydrocarbon contact using oil spill modelling predictions.

Term	Description / Definition
Receptor areas	Geographically referenced areas such as bays, islands, coastlines and/or protected area (WHA, Commonwealth or State marine reserve or park) containing one or more receptor type.
Receptor Sensitivities	This is a classification scheme to categorise receptor sensitivity to an oil spill. The Environmental Sensitivity Index (ESI) is a numerical classification of the relative sensitivity of a particular environment (particularly different shoreline types) to an oil spill. Refer to the Woodside Oil Pollution Emergency Arrangements (Australia) for more details.
Regulator	NOPSEMA are the Environment Regulator under the Environment Regulations.
Reliability	The probability that at any point in time a control measure will operate correctly for a further specified length of time.
Response technique	The key priorities and objectives to be achieved by the response plan Measures taken in response to an event to reduce or prevent adverse consequences.
Survivability	Whether or not a control measure is able to survive a potentially damaging event is relevant for all control measures that are required to function after an incident has occurred.
Threshold	Hydrocarbon threshold concentrations applied to the risk assessment to evaluate hydrocarbon spills. These are defined as: surface hydrocarbon concentration – $\geq 10 \text{ g/m}^2$, dissolved – $\geq 100 \text{ ppb}$ and entrained hydrocarbon concentrations – $\geq 500 \text{ ppb}$.
Zone of Application	The zone in which Woodside may elect to apply dispersant. The zone is determined based on a range of considerations, such as hydrocarbon characteristics, weathering and metocean conditions. The zone is a key consideration in the Net Environmental Benefit Analysis for dispersant use.

11.2 Abbreviations

Abbreviation	Meaning
ADIOS	Automated Data Inquiry for Oil Spills
AIIMS	Australasian Inter-Service Incident Management System
ALARP	As low as reasonably practicable
AMOSOC	Australian Marine Oil Spill Centre
AMP	Australian Marine Park
AMSA	Australian Maritime Safety Authority
AUV	Autonomous Underwater Vehicle
BAOAC	Bonn Agreement Oil Appearance Code
BOP	Blowout Preventer
CIMT	Corporate Incident Management Team
COP	Common Operating Picture
cST	Centistokes
DM	Duty Manager
DoT	Western Australia Department of Transport
DBCA	Western Australia Department of Biodiversity, Conservation and Attractions (former Western Australian Department of Parks and Wildlife)
EMBA	Environment that May Be Affected
EMSA	European Maritime Safety Agency
EP	Environment Plan
Environment Regulations	Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009
ESI	Environmental Sensitivity Index
ESD	Ecologically Sustainable Development
ESP	Environmental Services Panel
FPSO	Floating Production Storage Offloading
FSP	First Strike Plan
GIS	Geographic Information System
GPS	Global Positioning System
HSP	Hydrocarbon Spill Preparedness
IAP	Incident Action Plan
IC	Incident Commander
ICE	Internal Control Environment
IMSA	Index of Marine Surveys for Assessment
IMT	Incident Management Team
IPIECA	International Petroleum Industry Environment Conservation Association
ITOPF	International Tanker Owners Pollution Federation
IUCN	International Union for Conservation of Nature

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Abbreviation	Meaning
KBSF	King Bay Supply Facility
KIMC	Karratha Incident Management Centre
KSAT	Kongsberg Satellite
MODU	Mobile Offshore Drilling Unit
MoU	Memorandum of Understanding
NEBA	Net Environmental Benefit Analysis
NOAA	National Oceanic and Atmospheric Administration
NRT	National Response Team
OILMAP	Oil Spill Model and Response System
OPEA	Oil Pollution Emergency Arrangements
OPEP	Oil Pollution Emergency Plan
OPGGSA	Offshore Petroleum and Greenhouse Gas Storage Act
OSRL	Oil Spill Response Limited
OSTM	Oil Spill Trajectory Modelling
OWR	Oiled Wildlife Response
OWRP	Oiled Wildlife Response Plan
PAP	Petroleum Activities Program
PEARLS	People, Environment, Asset, Reputation, Livelihood and Services
PBA	Pre-emptive Baseline Areas
PPA	Priority Protection Area
PPB	Parts per billion
PPM	Parts per million
ROV	Remotely Operated Vehicle(s)
RPA	Response Protection Area
SCAT	Shoreline Contamination Assessment Techniques
SIMAP	Integrated Oil Spill Impact Model System
SSDI	Subsea Dispersant Injection
SFRT	Subsea First Response Toolkit
SMP	Scientific monitoring program
SOP	Standard Operating Procedure
TRP	Tactical Response Plan
UAS	Unmanned Aerial Systems
UAV	Unmanned Aerial Vehicles
WHA	World Heritage Area
Woodside	Woodside Energy Limited
WCC	Woodside Communication Centre
WWCI	Wild Well Control Inc

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Abbreviation	Meaning
WCCS	Worst Case Credible Scenario
ZoA	Zone of Application

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ANNEX A: NET ENVIRONMENTAL BENEFIT ANALYSIS DETAILED OUTCOMES

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A NEBA has been conducted to assess the net environmental benefit of different response techniques to selected receptors in the event of an oil spill from the PAP for loss of MDO due to vessel collision. The complete list of potential receptor locations within the EMBA within the PAP is included in Section 5 of the EP.

The locations utilised for the NEBA were limited to the identified RPAs of the PAP identified from modelling (see Section 3 for outline of selection).

These include receptors which have potential for the following:

- Surface contact (>50 g/m²)
- Shoreline accumulation (100 g/m²) at any time (note: no shoreline contact is predicted at this threshold)
- Entrained oil (>100 ppb) within 14 days

The detailed NEBA assessment outcomes are shown below.

Table A-1: NEBA assessment technique recommendations for the WCCS (CS-01 (Julimar)) MDO release

Receptor	Monitor and evaluate	Containment and recovery	Dispersant application: > 20 m water depth and > 10 km from shore/reefs	Shoreline protection	Shoreline clean-up (manual)	Shoreline clean-up (mechanical)	Shoreline clean-up (chemical)	Oiled wildlife response	In situ burning	Mechanical dispersion	Source control (via vessel SOPEP)
Gascoyne AMP	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Montebello AMP	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Ningaloo AMP	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Exmouth Coastline	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Barrow Island	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Boodie Island	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Middle Island	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Montebello Islands	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Southern Pilbara - Islands	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Barrow Island MP (State)	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Barrow Island MMA	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Montebello Islands MP	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Muiron Islands MMA	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Ningaloo Coast WH	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Ningaloo MP (State)	Yes	No	No	No	No	No	No	Yes	No	No	Yes
Boodie, Double Middle Islands Nature Reserve NR	Yes	No	No	No	No	No	No	Yes	No	No	Yes

Table A-2: Overall assessment

Receptor	Monitor and evaluate	Containment and recovery	Dispersant application: > 20 m water depth and > 10 km from shore/reefs	Shoreline protection	Shoreline clean-up (manual)	Shoreline clean-up (mechanical)	Shoreline clean-up (chemical)	Oiled wildlife response	In situ burning	Mechanical dispersion	Source control (via vessel SOPEP)
Is this response Practicable?	Yes	No	No	No	No	No	No	Yes	No	No	Yes
NEBA identifies Response potentially of Net Environmental Benefit?	Yes	No	No	No	No	No	No	Yes	No	No	Yes

NEBA Impact Ranking Classification Guidance

To reduce variability between assessments, the following ranking descriptions have been devised to guide the workshop process:

		Degree of impact ⁸		Potential duration of impact	Equivalent Woodside Corporate Risk Matrix Consequence Level
Positive	3P	Major	Likely to prevent: <ul style="list-style-type: none"> behavioural impact to biological receptors behavioural impact to socio-economic receptors e.g. changes to day-to-day business operations, public opinion/behaviours (e.g. avoidance of amenities such as beaches) or regulatory designations. 	Decrease in duration of impact by > 5 years	N/A
	2P	Moderate	Likely to prevent: <ul style="list-style-type: none"> significant impact to a single phase of reproductive cycle of biological receptors detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socio-economic receptors. 	Decrease in duration of impact by 1–5 years	N/A
	1P	Minor	Likely to prevent impacts on: <ul style="list-style-type: none"> significant proportion of population or breeding stages of biological receptors socio-economic receptors such as: <ul style="list-style-type: none"> significant impact to the sensitivity of protective designation; or significant and long-term impact to business/industry. 	Decrease in duration of impact by several seasons (< 1 year)	N/A
	0	Non-mitigated spill impact	No detectable difference to unmitigated spill scenario.		
Negative	1N	Minor	Likely to result in: <ul style="list-style-type: none"> behavioural impact to biological receptors behavioural impact to socio-economic receptors e.g. changes to day-to-day business operations, public opinion/behaviours (e.g. avoidance of amenities such as beaches), or regulatory designations. 	Increase in duration of impact by several seasons (< 1 year)	Increase in risk by one sub-category, without changing category (e.g. Minor (E) to Minor (D))
	2N	Moderate	Likely to result in: <ul style="list-style-type: none"> significant impact to a single phase of reproductive cycle for biological receptors; or detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socio-economic receptors. This level of negative impact is recoverable and unlikely to result in closure of business/industry in the region. 	Increase in duration of impact by 1–5 years	Increase in risk by one category (e.g. Minor (D) to Moderate (C or B))
	3N	Major	Likely to result in impacts on: <ul style="list-style-type: none"> significant proportion of population or breeding stages of biological receptors socio-economic receptors resulting in either: <ul style="list-style-type: none"> significant impact to the sensitivity of protective designation; or significant and long-term impact to business/industry. 	Increase in duration of impact by > 5 years or unrecoverable	Increase in risk by two categories (e.g. Minor (E) to Major (A))

⁸ NOTE: the maximum likely impact should be considered; for example, if a spill were to directly impact the behaviour that results in an impact to reproduction and/or the breeding population (such as fish failing to aggregate to spawn), then the score should be a 2 or 3 rather than a 1. Similarly, if a change in behaviour resulted in an increased risk of mortality of a population, then it should be scored as a 2 or 3

ANNEX B: OPERATIONAL MONITORING ACTIVATION AND TERMINATION CRITERIA

Table B-1: Operational monitoring objectives, triggers and termination criteria

Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p>Operational Monitoring Operational Plan – 01 (OM01)</p> <p>Predictive Modelling of Hydrocarbons to Assess Resources at Risk</p>	<p>OM01 focuses on the conditions that have prevailed since a spill commenced, as well as those that are forecasted in the short term (1–3 days ahead) and longer term. OM01 utilises computer-based forecasting methods to predict hydrocarbon spill movement and guide the management and execution of spill response operations to maximise the protection of environmental resources at risk.</p> <p>The objectives of OM01 are to:</p> <ul style="list-style-type: none"> • Provide forecasting of the movement and weathering of spilled hydrocarbons • Identify resources that are potentially at risk of contamination • Provide simulations showing the outcome of alternative response options (booming patterns etc.) to inform on-going Net Environmental Benefit Analysis (NEBA) and continually assess the efficacy of available response options in order to reduce risks to ALARP 	<p>OM01 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The criteria for the termination of OM01 are:</p> <ul style="list-style-type: none"> • The hydrocarbon discharge has ceased and no further surface oil is visible • Response activities have ceased • Hydrocarbon spill modelling (as verified by OM02 surveillance observations) predicts no additional natural resources will be impacted

Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p>Operational Monitoring Operational Plan – 02 (OM02)</p> <p>Surveillance and reconnaissance to detect hydrocarbons and resources at risk</p>	<p>OM02 aims to provide regular, on-going hydrocarbon spill surveillance throughout a broad region, in the event of a spill.</p> <p>The objectives of OM02 are:</p> <ul style="list-style-type: none"> • Verify spill modelling results and recalibrate spill trajectory models (OM01). • Understand the behaviour, weathering and fate of surface hydrocarbons. • Identify environmental receptors and locations at risk or contaminated by hydrocarbons. • Inform ongoing Net Environmental Benefit Analysis (NEBA) and continually assess the efficacy of available response options in order to reduce risks to ALARP. • To aid in the subsequent assessment of the short- to long-term impacts and/or recovery of natural resources (assessed in SMPs) by ensuring that the visible cause and effect relationships between the hydrocarbon spill and its impacts to natural resources have been observed and recorded during the operational phase. 	<p>OM02 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The termination triggers for the OM02 are:</p> <ul style="list-style-type: none"> • 72 hours has elapsed since the last confirmed observation of surface hydrocarbons. • Latest hydrocarbon spill modelling results (OM01) do not predict surface exposures at visible levels.
<p>Operational Monitoring Operational Plan – 03 (OM03)</p> <p>Monitoring of hydrocarbon presence, properties, behaviour and weathering in water</p>	<p>OM03 will measure surface, entrained and dissolved hydrocarbons in the water column to inform decision-making for spill response activities.</p> <p>The specific objectives of OM03 are as follows:</p> <ul style="list-style-type: none"> • Detect and monitor for the presence, quantity, properties, behaviour and weathering of surface, entrained and dissolved hydrocarbons. • Verify predictions made by OM01 and observations made by OM02 about the presence and extent of hydrocarbon contamination. <p>Data collected in OM03 will also be used for the purpose of longer-term water quality monitoring during SM01.</p>	<p>OM03 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The criteria for the termination of OM03 are as follows:</p> <ul style="list-style-type: none"> • The hydrocarbon release has ceased. • Response activities have ceased. • Concentrations of hydrocarbons in the water are below available ANZECC/ ARMCANZ (2018) trigger values for 99% species protection.

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Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p>Operational Monitoring Operational Plan – 04 (OM04)</p> <p>Pre-emptive assessment of sensitive receptors at risk</p>	<p>OM04 aims to undertake a rapid assessment of the presence, extent and current status of shoreline sensitive receptors prior to contact from the hydrocarbon spill, by providing categorical or semi-quantitative information on the characteristics of resources at risk.</p> <p>The primary objective of OM04 is to confirm understanding of the status and characteristics of environmental resources predicted by OM01 and OM02 to be at risk, to further assist in making decisions on the selection of appropriate response actions and prioritisation of resources.</p> <p>Indirectly, qualitative/semi-quantitative pre-contact information collected by OM04 on the status of environmental resources may also aid in the verification of environmental baseline data and provide context for the assessment of environmental impacts, as determined through subsequent SMPs.</p> <p>OM04 would be undertaken in liaison with WA DoT as the control agency once the oil is in State Waters (if a Level 2/3 incident).</p>	<p>Triggers for commencing OM04 include:</p> <ul style="list-style-type: none"> • Contact of a sensitive habitat or shoreline is predicted by OM01, OM02 and/or OM03. • The pre-emptive assessment methods can be implemented before contact from hydrocarbons (once a receptor has been contacted by hydrocarbons it will be assessed under OM05). 	<p>The criteria for the termination of OM04 at any given location are:</p> <ul style="list-style-type: none"> • Locations predicted to be contacted by hydrocarbons have been contacted. • The location has not been contacted by hydrocarbons and is no longer predicted to be contacted by hydrocarbons (resources should be reallocated as appropriate).

Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p>Operational monitoring operational plan – 05 (OM05)</p> <p>Monitoring of contaminated resources</p>	<p>OM05 aims to implement surveys to assess the condition of wildlife and habitats contacted by hydrocarbons at sensitive habitat and shoreline locations.</p> <p>The primary objectives of OM05 are:</p> <ul style="list-style-type: none"> Record evidence of oiled wildlife (mortalities, sub-lethal impacts, number, extent, location) and habitats (mortalities, sub-lethal impacts, type, extent of cover, area, hydrocarbon character, thickness, mass and content) throughout the response and clean-up at locations contacted by hydrocarbons to inform and prioritise clean-up efforts and resources, while minimising the potential impacts of these activities. <p>Indirectly, the information collected by OM05 may also support the assessment of environmental impacts, as determined through subsequent SMPs.</p> <p>OM05 would be undertaken in liaison with WA DoT as the control agency once the oil is in State Waters (if a Level 2/3 incident).</p>	<p>OM05 will be triggered when a sensitive habitat or shoreline is predicted to be contacted by hydrocarbons by OM01, OM02 and/or OM03.</p>	<p>The criteria for the termination of OM05 at any given location are:</p> <ul style="list-style-type: none"> No additional response or clean-up of wildlife or habitats is predicted. Spill response and clean-up activities have ceased. <p>OM05 survey sites established at sensitive habitat and shoreline locations will continue to be monitored during SM02.</p> <p>The formal transition from OM05 to SM02 will begin on cessation of spill response and clean-up activities.</p>

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ANNEX C: OIL SPILL SCIENTIFIC MONITORING PROGRAM

Oil Spill Environmental Monitoring

The following provides some further detail on Woodside's oil spill scientific monitoring Program and includes the following:

- The organisation, roles and responsibilities of the Woodside oil spill scientific monitoring team and external resourcing.
- A summary table of the ten scientific monitoring programs as per the specific focus receptor, objectives, activation triggers and termination criteria.
- Details on the oil spill environmental monitoring activation and termination decision-making processes.
- Baseline knowledge and environmental studies knowledge access via geo-spatial metadata databases.
- An outline of the reporting requirements for oil spill scientific monitoring programs.

Oil Spill Scientific Monitoring – Delivery Team Roles and Responsibilities

Woodside Oil Spill Scientific Monitoring Delivery Team

The Woodside science team are responsible for the delivery of the oil spill scientific monitoring. The roles and responsibilities of the Woodside scientific monitoring delivery team are presented in Table C-1 and the organisational structure and Corporate Incident Management Team (CIMT) linkage provided in Figure C-1.

Woodside Oil Spill Scientific monitoring program – External Resourcing

In the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors, scientific monitoring personnel and scientific equipment to implement the appropriate SMPs will be provided by SMP Standby contractor who hold a standby contract for SMP via the Woodside Environmental Services Panel (ESP). In the event that additional resources are required other consultancy capacity within the Woodside ESP will be utilised (as needed and may extend to specialist contractors such as research agencies engaged in long-term marine monitoring programs). In consultation with the SMP Standby Contractor and/or specialist contractors, the selection, field sampling and approach of the SMPs will be determined by the nature and scale of the spill.

Table C-1: Woodside and Environmental Service Provider – Oil Spill Scientific Monitoring Program Delivery Team Key Roles and Responsibilities

Role	Location	Responsibility
Woodside Roles		
SMP Lead/Manager	Onshore	<ul style="list-style-type: none"> • Approves activated the SMPs based on operational monitoring data provided by the Planning Section • Provides advice to the CIMT in relation to scientific monitoring • Provides technical advice regarding the implementation of scientific monitoring • Approves detailed sampling plans prepared for SMPs • Directs liaison between statutory authorities, advisors and government agencies in relation to SMPs.
SMP Co-Ordinator	Onshore	<ul style="list-style-type: none"> • Activates the SMPs based on operational monitoring data provided by the Planning Section • Sits in the Planning Section of the CIMT • Liaises with other CIMT Sections to deliver required logistics, resources and operational support from Woodside to support the Environmental Service Provider in delivering on the SMPs. Acts as the conduit for advice from the SMP Lead/Manager to the Environmental Service Provider • Manages the Environmental Service Provider’s implementation of the SMPs • Liaises with the Environmental Service Provider on delivery of the SMPs • Arranges all contractual matters, on behalf of Woodside, associated with the Environmental Service Provider’s delivery of the SMPs.
Environmental Service Provider Roles		
SMP Standby Contractor – SMP Duty Manager/Project Manager (SMP Liaison Officer)	Onshore	<ul style="list-style-type: none"> • Coordinates the delivery of the SMPs • Provides costings, schedule and progress updates for delivery of SMPs • Determines the structure of the Environmental Service Provider’s team to necessitate delivery of the SMPs • Verifies that HSE Plans, detailed sampling plans and other relevant deliverables are developed and implemented for delivery of the SMPs • Directs field teams to deliver SMPs • Arranges all contractual matters, on behalf of Environmental Service Provider, associated with the delivery of the SMPs to Woodside • Manages sub-consultant delivery to Woodside • Provides required personnel and equipment to deliver the SMPs.
SMP Field Teams	Offshore – Monitoring Locations	<ul style="list-style-type: none"> • Delivers the SMPs in the field consistent with the detailed sampling plans and HSE requirements, within time and budget. • Early communication of time, budget, HSE risks associated with delivery of the SMPs to the Environmental Service Provider – Project Manager • Provides start up, progress and termination updates to the Environmental Service Provider – Project Manager (will be led in-field by a party chief).

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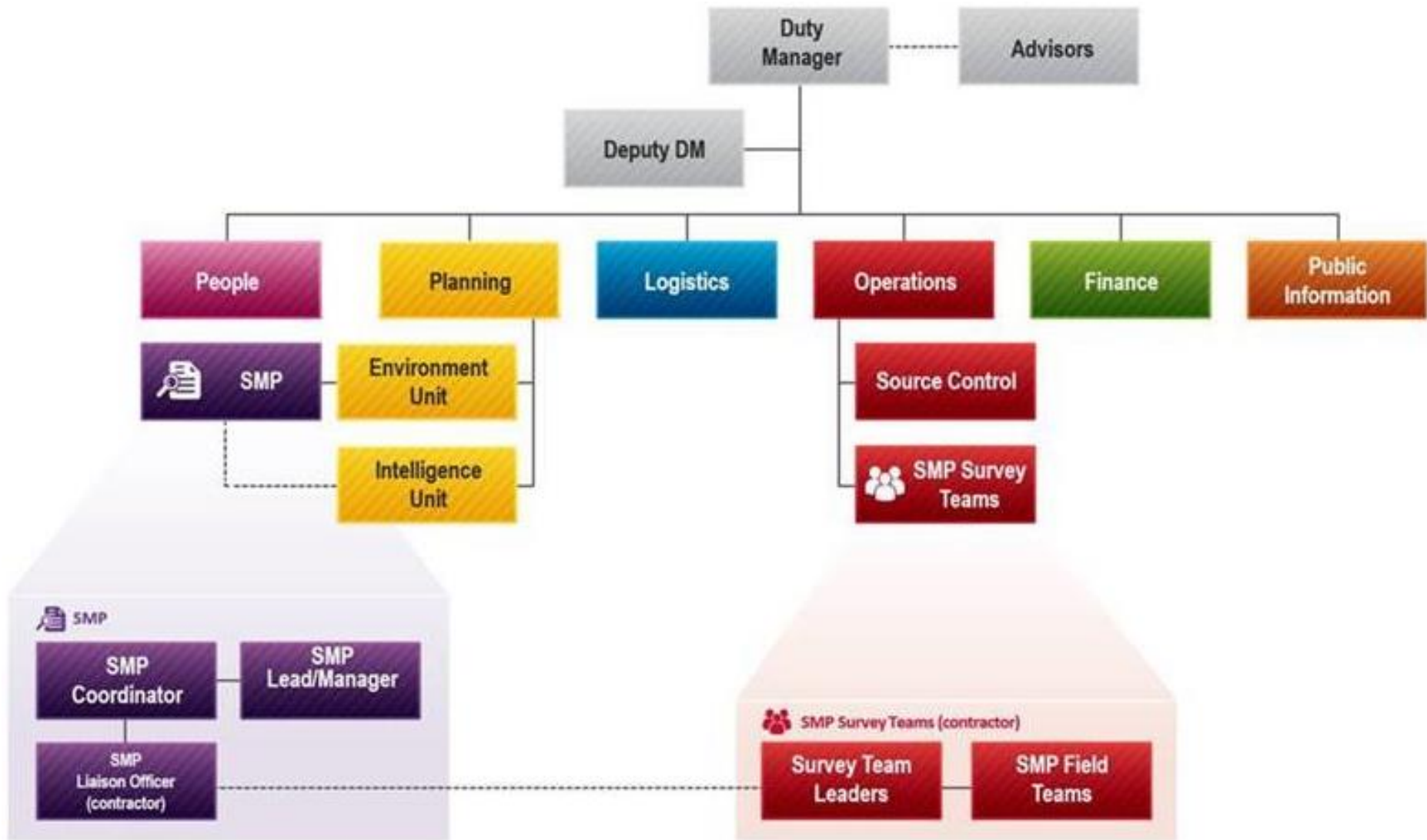


Figure C-1: Woodside Oil Spill Scientific Monitoring Program Delivery Team and Linkage to Corporate Incident Management Team (CIMT) organisational structure

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Table C-2: Oil Spill Environmental Monitoring: Scientific Monitoring Program - Objectives, Activation Triggers and Termination Criteria

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
Scientific monitoring program 1 (SM01) Assessment of Hydrocarbons in Marine Waters	<p>SM01 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine waters following the spill and the response.</p> <p>The specific objectives of SM01 are as follows:</p> <ul style="list-style-type: none"> Assess and document the extent, severity and persistence of hydrocarbon contamination with reference to observations made during surveillance activities and / or in-water measurements made during operational monitoring; and Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs. 	<p>SM01 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors</p>	<p>SM01 will be terminated when:</p> <ul style="list-style-type: none"> Operational monitoring data relating to observations and / or measurements of hydrocarbons on and in water have been compiled, analysed and reported; and The report provides details of the extent, severity and persistence of hydrocarbons which can be used for analysis of impacts recorded for sensitive receptors monitored under other SMPs. <p>SMP monitoring of sensitive receptor sites:</p> <ul style="list-style-type: none"> Concentrations of hydrocarbons in water samples are below NOPSEMA guidance note (20199) concentrations of 1 g/m² for floating, 10 ppb for entrained and dissolved; and Details of the extent, severity and persistence of hydrocarbons from concentrations recorded in water have been documented at sensitive receptor sites monitored under other SMPs.
Scientific monitoring program 2 (SM02) Assessment of the Presence, Quantity and Character of Hydrocarbons in Marine Sediments	<p>SM02 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine sediments following the spill and the response.</p> <p>The specific objectives of SM02 are as follows:</p> <ul style="list-style-type: none"> Determine the extent, severity and persistence of hydrocarbons in marine sediments across selected sites where hydrocarbons were observed or recorded during operational monitoring; and Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs. 	<p>SM02 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows:</p> <ul style="list-style-type: none"> Response activities have ceased; and Operational monitoring results made during the response phase indicate that shoreline, intertidal or sub-tidal sediments have been exposed to surface, entrained or dissolved hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation). 	<p>SM02 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> Concentrations of hydrocarbons in sediment samples are below ANZECC/ ARMCANZ (201310) sediment quality guideline values (SQGVs) for biological disturbance; and Details of the extent, severity and persistence of hydrocarbons from concentrations recorded in sediments have been documented.
Scientific monitoring program 3 (SM03) Assessment of Impacts and Recovery of Subtidal and Intertidal Benthos	<p>The objectives of SM03 are:</p> <ul style="list-style-type: none"> Characterize the status of intertidal and subtidal benthic habitats and quantify any impacts to functional groups, abundance and density that may be a result of the spill; and Determine the impact of the hydrocarbon spill and subsequent recovery (including impacts associated with the implementation of response options). <p>Categories of intertidal and subtidal habitats that may be monitored include:</p> <ul style="list-style-type: none"> Coral reefs Seagrass Macro-algae Filter-feeders <p>SM03 will be supported by sediment contamination records (SM02) and characteristics of the spill derived from OMPs.</p>	<p>SM03 will be activated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows:</p> <ul style="list-style-type: none"> As part of a pre-emptive assessment of PBAs of receptor locations identified by time to hydrocarbon contact >10 days, to target receptors and sites where it is possible to acquire pre-hydrocarbon contact baseline; and Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) for subtidal and intertidal benthic habitat. 	<p>SM03 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> Overall impacts to benthic habitats from hydrocarbon exposure have been quantified. Recovery of impacted benthic habitats has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.

⁹ NOPSEMA (2019) Bulletin #1 – Oil spill modelling – April 2019, <https://www.nopsema.gov.au/assets/Bulletins/A652993.pdf>

¹⁰ Simpson SL, Batley GB and Chariton AA (2013). Revision of the ANZECC/ARMCANZ Sediment Quality Guidelines. CSIRO and Water Science Report 08/07. Land and Water, pp. 132.

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
Scientific monitoring program 4 (SM04) Assessment of Impacts and Recovery of Mangroves / Saltmarsh	<p>The objectives of SM04 are:</p> <ul style="list-style-type: none"> Characterize the status of mangroves (and associated salt marsh habitat) at shorelines exposed/contacted by spilled hydrocarbons; Quantify any impacts to species (abundance and density) and mangrove/saltmarsh community structure; and Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options). <p>SM03 will be supported by sediment sampling undertaken in SM02 and characteristics of the spill derived from OMPs.</p>	<p>SM04 will be activated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows:</p> <ul style="list-style-type: none"> As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; and Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) for mangrove/saltmarsh habitat. 	<p>SM04 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> Impacts to mangrove and saltmarsh habitat from hydrocarbon exposure have been quantified. Recovery of impacted mangrove/saltmarsh habitat has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 5 (SM05) Assessment of Impacts and Recovery of Seabird and Shorebird Populations	<p>The Objectives of SM05 are to:</p> <ul style="list-style-type: none"> Collate and quantify impacts to avian wildlife from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population level; and Undertake monitoring to quantify and assess impacts of hydrocarbon exposure to seabirds and shorebird populations at targeted breeding colonies / staging sites / important coastal wetlands where hydrocarbon contact was recorded. 	<p>SM05 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows:</p> <ul style="list-style-type: none"> As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; Operational monitoring predicts shoreline contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at important bird colonies / staging sites / important coastal wetland locations; or Records of dead, oiled or injured bird species made during the hydrocarbon spill or response. 	<p>SM05 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of:</p> <ul style="list-style-type: none"> Impacts to seabird and shorebird populations from hydrocarbon exposure have been quantified. Recovery of impacted seabird and shorebird populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 6 (SM06) Assessment of Impacts and Recovery of Nesting Marine Turtle Populations	<p>The objectives of SM06 are to:</p> <ul style="list-style-type: none"> To quantify impacts of hydrocarbon exposure or contact on marine turtle nesting populations (including impacts associated with the implementation of response options); Collate and quantify impacts to adult and hatchling marine turtles from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population levels (including impacts associated with the implementation of response options); .and Undertake monitoring to quantify and assess impacts of hydrocarbon exposure to nesting marine turtle populations at known rookeries (including impacts associated with the implementation of response options). 	<p>SM06 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring has:</p> <ul style="list-style-type: none"> As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; Predicted shoreline contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at known marine turtle rookery locations; or Records of dead, oiled or injured marine turtle species made during the hydrocarbon spill or response. 	<p>SM06 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of:</p> <ul style="list-style-type: none"> Impacts to nesting marine turtle populations from hydrocarbon exposure have been quantified. Recovery of impacted nesting marine turtle populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 7 (SM07) Assessment of Impacts to Pinniped Colonies including Haul-out Site Populations	<p>The objectives of SM07 are to:</p> <ul style="list-style-type: none"> Quantify impacts on pinniped colonies and haul-out sites as a result of hydrocarbon exposure/contact. 	<p>SM07 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring has:</p>	<p>SM07 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of:</p>

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
	<ul style="list-style-type: none"> Collate and quantify impacts to pinniped populations from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population levels. 	<ul style="list-style-type: none"> As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; Identified shoreline contact of hydrocarbons ((at or above 0.5 g/m² surface, ≥5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at known pinniped colony or haul-out site(s) (i.e. most northern site is the Houtman Abrolhos Islands); or Records of dead, oiled or injured pinniped species made during the hydrocarbon spill or response. 	<ul style="list-style-type: none"> Impacts to pinniped populations from hydrocarbon exposure have been quantified. Recovery of pinniped populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
<p>Scientific monitoring program 8 (SM08)</p> <p>Desk-Based Assessment of Impacts to Other Non-Avian Marine Megafauna</p>	<p>The objective of SM08 is to provide a desk-based assessment which collates the results of OM02 and OM05 where observations relate to the mortality, stranding or oiling of mobile marine megafauna species not addressed in SM06 or SM07, including:</p> <ul style="list-style-type: none"> Cetaceans; Dugongs; Whale sharks and other shark and ray populations; Sea snakes; and Crocodiles. <p>The desk-based assessment will include population analysis to infer potential impacts to marine megafauna species populations.</p>	<p>SM08 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring reports records of dead, oiled or injured non-avian marine megafauna during the spill/ response phase.</p>	<p>SM08 will be terminated when the results of the post-spill monitoring have quantified impacts to non-avian megafauna.</p> <ul style="list-style-type: none"> Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
<p>Scientific monitoring program 9 (SM09)</p> <p>Assessment of Impacts and Recovery of Marine Fish associated with SM03 habitats</p>	<p>The objectives of SM09 are:</p> <ul style="list-style-type: none"> Characterise the status of resident fish populations associated with habitats monitored in SM03 exposed/contacted by spilled hydrocarbons; Quantify any impacts to species (abundance, richness and density) and resident fish population structure (representative functional trophic groups); and Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options). 	<p>SM09 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented with SMO3.</p>	<p>SM09 will be undertaken and terminated concurrent with monitoring undertaken for SM03, as per the SMP termination criteria process</p> <ul style="list-style-type: none"> Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
<p>Scientific monitoring program 10 (SM10)</p> <p>SM10 - Assessment of physiological impacts important fish and shellfish species (fish health and seafood quality/safety) and recovery</p>	<p>SM10 aims to assess any physiological impacts to important commercial fish and shellfish species (assessment of fish health) and if applicable, seafood quality/safety. Monitoring will be designed to sample key commercial fish and shellfish species and analyse tissues to identify fish health indicators and biomarkers, for example:</p> <ul style="list-style-type: none"> Liver Detoxification Enzymes (ethoxyresorufin-O-deethylase (EROD) activity) PAH Biliary Metabolites Oxidative DNA Damage Serum SDH Other physiological parameters, such as condition factor (CF), liver somatic index (LSI), gonado-somatic index (GSI) and gonad histology, total weight, length, condition, parasites, egg development, testes development, abnormalities. Seafood tainting may be included (where appropriate) using applicable sensory tests to objectively assess targeted finfish and shellfish species for hydrocarbon contamination. 	<p>SM10 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring (OM01, OM02 and OM05) indicates the following:</p> <ul style="list-style-type: none"> The hydrocarbon spill will or has intersected with active commercial fisheries or aquaculture activities. Commercially targeted finfish and/or shellfish mortality has been observed/recorded. Commercial fishing or aquaculture areas have been exposed to hydrocarbons (≥0.5 g/m² surface and ≥5 ppb for entrained/dissolved hydrocarbons); and Taste, odour or appearance of seafood presenting a potential human health risk is observed. 	<p>SM10 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of:</p> <ul style="list-style-type: none"> Physiological impacts to important commercial fish and shellfish species from hydrocarbon exposure have been quantified. Recovery of important commercial fish and shellfish species from hydrocarbon exposure has been evaluated. Impacts to seafood quality/safety (if applicable) have been assessed and information provided to the relevant persons/ organisations and regulators for the management of any impacted fisheries.

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
	Results will be used to make inferences on the health of commercial fisheries and the potential magnitude of impacts to fishing industries.		<ul style="list-style-type: none"> Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.

Activation Triggers and Termination Criteria

Scientific monitoring program Activation

The Woodside oil spill scientific monitoring team will be stood up immediately with the occurrence of a hydrocarbon spill (actual or suspected) Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors via the first strike plan for the petroleum activity programme. The presence of any level of hydrocarbons in the marine environment triggers the activation of the oil spill scientific monitoring program (SMP). This is to ensure the full range of eventualities relating to the environmental, socio-economic and health consequences of the spill are considered in the planning and execution of the SMP. The activation process also takes into consideration the management objectives, species recovery plans, conservation advices and conservations plans for any World Heritage Area (WHA), CMRs, State Marine Parks, other protected area designations (e.g., State nature reserves) and Matters of National Environmental Significance (including listed species under part 3 of the EPBC Act) potentially exposed to hydrocarbons. With the first 24-48 hours of a spill event, such information will be sourced and evaluated as part of the SMP planning process guided by Appendix D (identified receptors vulnerable to hydrocarbon contact), the information presented in the Existing Environment section of the EP as well as other information sources such as the Woodside Baseline Environmental Studies Database.

The starting point for decision-making on what SMPs are activated and spatial extent of monitoring activities will be based on the predictive modelling results (OM01) in the first 24-48 hours until more information is made available from other operational monitoring activities such as aerial surveillance and shoreline surveys. Pre-emptive Baseline Areas (WHA, CMRs and State Marine Parks encompassing key ecological and socio-economic values) are a key focus of the SMP activation decision-making process, particularly, in the early spill event/response phase. As the operational monitoring progresses and further situational awareness information becomes available, it will be possible to understand the nature and scale of the spill. The SMP activation and implementation decision-making will be revisited on a daily basis to account for the updates on spill information. One of the priority focus areas in the early phase of the incident will be to identify and execute pre-emptive SMP assessments at key receptor locations, as required. The SMP activation and implementation decision tree is presented in Figure C-2.

Scientific monitoring Program Termination

The basis of the termination process for the active SMPs (SMPs 1-10) will include quantification of impacts, evaluation of recovery for the receptor at risk and consultation with relevant authorities, persons and organisations. Termination of each SMP will not be considered until the results (as presented in annual SMP reports for the duration of each program) indicate that the target receptor has returned to pre-spill condition.

Once the SMP results indicate impacted receptor(s) have returned to pre-spill condition (as identified by Woodside) a termination decision-making process will be triggered and a number of steps will be undertaken as follows:

- Woodside will engage expert opinion on whether the receptor has returned to pre-spill condition (based on monitoring data). Subject Matter Expert (SMEs) will be engaged (via the Woodside SME scientific monitoring terms of reference) to review program outcomes, provide expert advice and recommendations for the duration of each SMP.
- Where expert opinion agrees that the receptor has returned to pre-spill condition, findings will then be presented to the relevant authorities, persons and organisations (as defined by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulation 11A). Stakeholder identification, planning and engagement will be managed by Woodside's Public Information Functional Support Team (FST) and follow the stakeholder management FST. These guidelines outline the FST roles and responsibilities, competencies, stakeholder communications and planning processes. An assessment of the merits of any objection to termination will be documented in the SMP final report.

- Woodside will decide on termination of SMP based on expert opinion and merits of any stakeholder objections. The final report following termination will include: monitoring results, expert opinion and stakeholder consultation including merits of any objections.
- Termination of SMPs will also consider applicable management objectives, species recovery plans, conservation advices and conservations plans for any World Heritage Area (WHA), CMRs, State Marine Parks, other protected area designations (e.g., State nature reserves) and Matters of National Environmental Significance (including listed species under part 3 of the EPBC Act).

The SMP termination decision-making process will be applied to each active SMP and an iterative process of decision steps continued until each SMP has been terminated (refer to decision-tree diagram for SMP termination criteria, Figure C-3).

SMP ACTIVATION & IMPLEMENTATION DECISION PROCESS

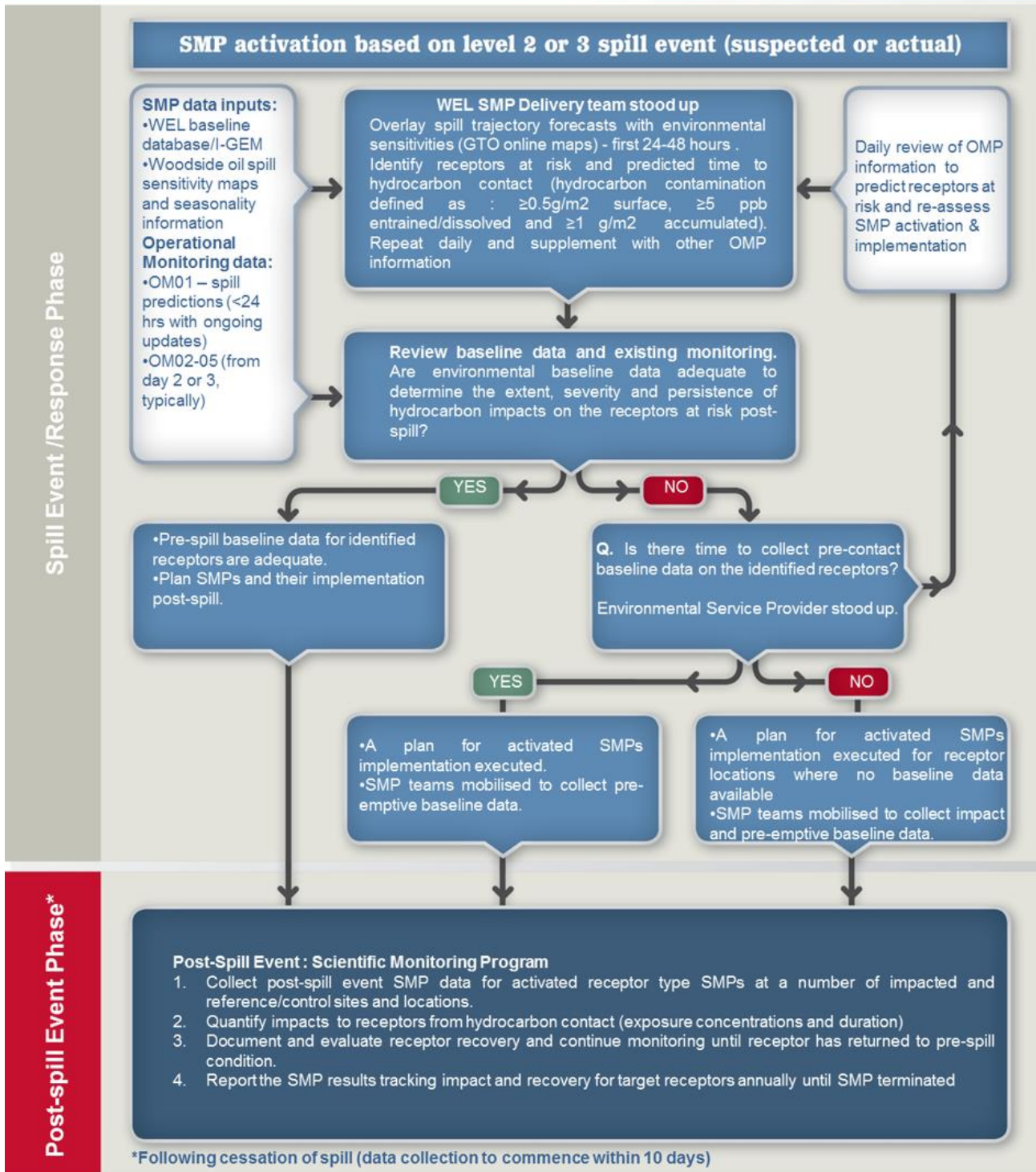


Figure C-2: Activation and Implementation Decision-tree for Oil Spill Environmental Monitoring

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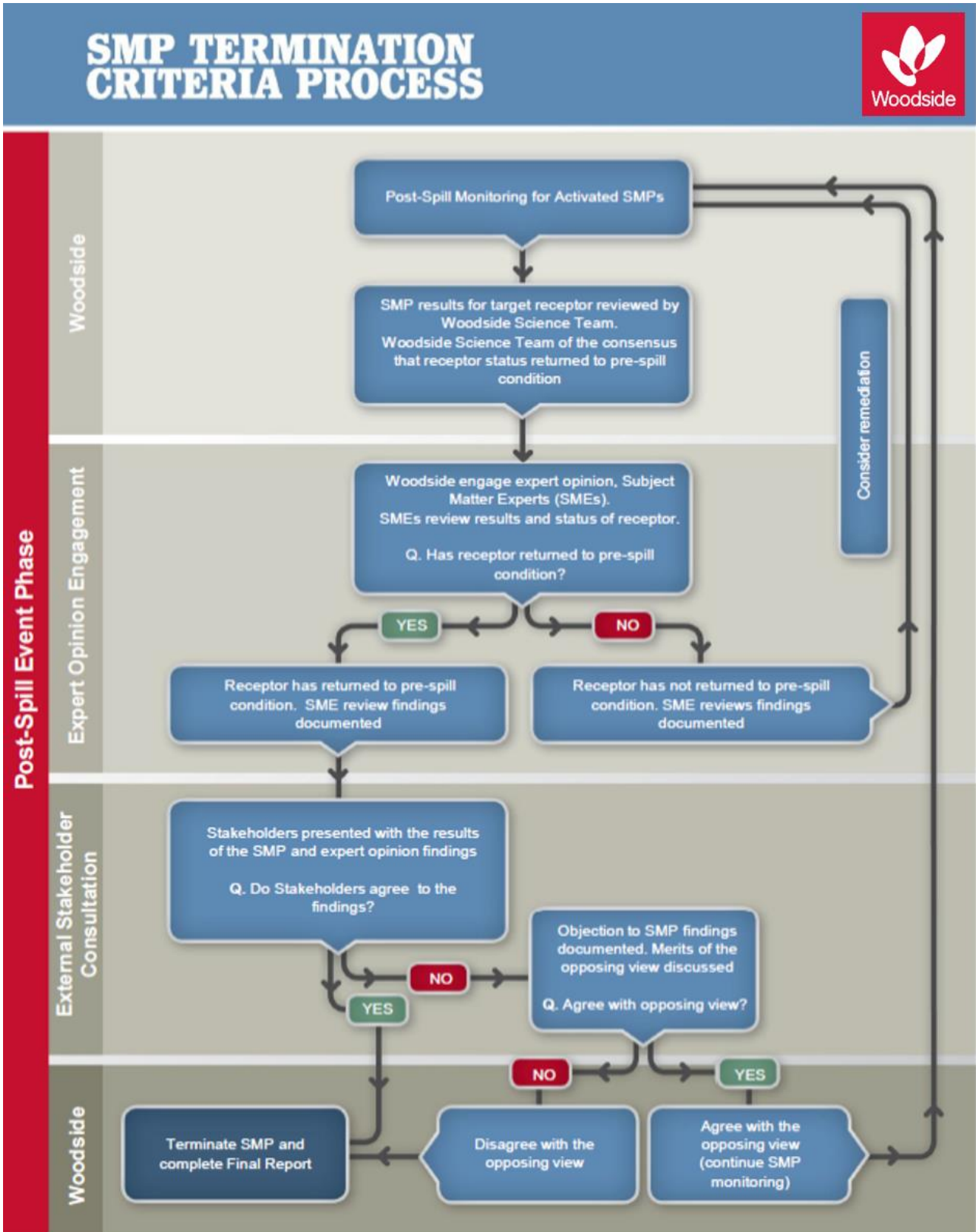


Figure C-3: Termination Criteria Decision-tree for Oil Spill Environmental Monitoring

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Receptors at Risk and Baseline Knowledge

In order to assess the baseline studies available and suitability for oil spill scientific monitoring, Woodside maintains knowledge of environmental baseline studies through the upkeep and use of its Environmental Knowledge Management System.

Woodside's Environmental Knowledge Management System is a centralised platform for scientific information on the existing environment, marine biodiversity, Woodside environmental studies, key environmental impact topics, key literature and web-based resources. The system comprises a number of data directories and an environmental baseline database, as well as folders within the 'Corporate Environment' server space. The environmental baseline database was set up to support Woodside's SMP preparedness and as a SMP resource in the event of an unplanned hydrocarbon spill. The environmental baseline database is subject to updates including annual reviews completed as part of SMP standby contract. This database is accessed pre-PAP to identify Pre-emptive Baseline Areas (PBAs) where hydrocarbon contact is predicted to occur <10 days.

In addition to Woodside's Environmental Knowledge Management System, it is acknowledged that many relevant baseline datasets are held by other organisations (e.g. other oil and gas operators, government agencies, state and federal research institutions and non-governmental organisations). In order to understand the present status of environmental baseline studies a spatial environmental metadata database for Western Australia (Industry-Government Environmental Metadata, I-GEM) was established. IGEM is a collaboration comprising oil and gas operators (including Woodside), government and research agencies and other organisations. IGEM held data were integrated into the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA)¹¹ in 2020. The Index of Marine Surveys for Assessments (IMSA) is an online portal for information about marine-based environmental surveys in Western Australia. IMSA is a project of the Department of Water and Environmental Regulation (the department) for the systematic capture and sharing of marine data created as part of an environmental impact assessment (EIA).

In the event of an unplanned hydrocarbon release, Woodside intends to interrogate the information on baseline studies status as held by the various databases (e.g. Woodside Environmental Knowledge Management System, IMSA and other sources of existing baseline data) to identify Pre-emptive Baseline Areas (PBAs), i.e., receptors at risk where hydrocarbon contact is predicted to be >10 days, and baseline data can be collected before hydrocarbon contact.

Reporting

For the scientific monitoring program relevant regulators will be provided with:

- Annual reports summarising the SMPs deployed and active, data collection activities and available findings; and
- Final reports for each SMP summarising the quantitative assessment of environmental impacts and recovery of the receptor once returned to pre-spill condition and termination of the monitoring program.

The reporting requirements of the scientific monitoring program will be specific to the individual SMPs deployed and terms of responsibilities, report templates, schedule, quality assurance/ quality control (QA/QC) and peer-review will be agreed with the contractors engaged to conduct the SMPs. Compliance and auditing mechanisms will be incorporated into the reporting terms.

¹¹ <https://biocollect.ala.org.au/imsa#max%3D20%26sort%3DdateCreatedSort>

ANNEX D: MONITORING PROGRAM AND BASELINE STUDIES FOR THE PETROLEUM ACTIVITIES PROGRAM

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Table D-1: Oil Spill Environmental Monitoring – scientific monitoring program scope for the Petroleum Activities Program based on Spill EMBA for the NWS and Julimar Exploration Wellhead Decommissioning

Receptors to be Monitored	Receptor Areas - Potential Impact and Reference Scientific Monitoring Sites (marked X)																																														
	Applicable SMP	Kimberley AMP	Agro-Rowley Terrace AMP	Montebello AMP	Dampier AMP	Carnarvon Canyon AMP	Ningaloo AMP	Gascoyne AMP	Shark Bay Open Ocean (including AMP)	Abrolhos AMP	Jurien AMP	Two Rocks AMP	Perth Canyon AMP	Geopraphe AMP	South-west Corner AMP	Ashmore Reef and AMP	Seringapatam Reef	Scott Reef (North and South)	Mermaid Reef and AMP	Clerke Reef and State Marine Park	Impey Reef and State Marine Park	Rankin Bank	Glomar Shoals	Rowley Shoals (including Sate Maine Park)	Fantome Shoal	Adele Island	Lacepede Islands	Montebello Islands (including State Marine Park)	Lowendal Islands (including State Nature Reserves)	Barrow Island (including State Nature Reserves, State Marine Park and Marine Management Area)	Muiron Islands (WHA, Marine Management Area)	Pilbara Islands - Southern Island Group (Serrurier, Thevenard and Bessieres Islands - State Nature)	Pilbara Islands - Northern Island Group (Sandy Island Passage Islands - State nature reserves)	Abrolhos Islands	Kimberley Coast	Dampier Peninsula	Northern Pilbara Shoreline	Ningaloo Coast (North/North West Cape, Middle and South) (WHA, and State Marine Park)	Shark Bay - Open Ocean Coast	Shark Bay (WHA, State Marine Park)	Ngari Capes State Marine Park						
Habitat																																															
Water Quality	SM01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Marine Sediment Quality	SM02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Coral Reef	SM03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Seagrass / Macro-Algae	SM03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Deeper Water Filter Feeders	SM03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Mangroves and Saltmarsh	SM04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Species																																															
Sea Birds and Migratory Shorebirds (significant colonies/staging sites/ coastal wetlands)	SM05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Marine Turtles (significant nesting beaches)	SM06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Pinnipeds (significant colonies/ haul-out sites)	SM07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Cetaceans – Migratory Whales	SM08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Oceanic and Coastal Cetaceans	SM08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dugongs	SM08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sea Snakes	SM08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Whale Sharks	SM08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Other Shark and Ray Populations	SM08, SM09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fish Assemblages	SM09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Socio-economic																																															
Fisheries – Commercial	SM10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fisheries – Traditional	SM10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tourism (incl. recreational fishing)	SM10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Receptor areas identified as Pre-emptive Baseline Areas (based on criteria of surface contact and/or entrained hydrocarbon contact ≤10 days (Offshore Australian Marine Parks contacted by hydrocarbons in this timeframe also noted)																																															
Receptor areas identified as Pre-emptive Baseline Areas in the response phase >10 days (based on criteria of surface contact and/or entrained hydrocarbon contact >10 days)																																															
Receptor areas that may be identified as impact or reference sites in the event of major hydrocarbon release and would be identified as part of the SMP planning process																																															

Table D-2: Baseline Studies for the SMPs applicable to identified Pre-emptive Baseline Areas (<10 days to predicted hydrocarbon contact) for the Petroleum Activities Program: NWS and Julimar Exploration Wellhead Decommissioning

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
Benthic Habitat (Coral Reef)	SM03 Quantitative assessment using image capture using either diver held camera or towed video. Post analysis into broad groups based on taxonomy and morphology.	Studies: 1. DBCA LTM Ningaloo Reef program: 1991-ongoing. 2. AIMS/DBCA 2014 Baseline Ningaloo and Muiron Islands Survey – repeat and expansion on the LTM (Co-funded survey: Woodside and AIMS). 3. Pilbara Marine Conservation Partnership. 4. WAMSI LTM Study: Ningaloo Research node: 2009 -10 over the length of Ningaloo reef system (with a focus on coral and fish recruitment). 5. Ningaloo Outlook (CSIRO) - Shallow and Deep Reefs Program (2015-ongoing). 6. Ningaloo Collaboration Cluster: Habitats of the Ningaloo Reef and adjacent coastal areas determined through hyperspectral imagery 7. Allen Coral Atlas 8. Gorgon Barrow Island Net Conservation Benefit Fund administered by DBCA: Characterisation of water quality and benthic communities across an environmental gradient – Ningaloo and Exmouth Gulf	1. Glomar Shoal and Rankin Bank Environmental Survey Report, 2013, quantitatively surveyed benthic habitats and communities. AIMS report to Woodside. Scientific Publication - Biodiversity and spatial patterns of benthic habitat and associated demersal fish communities at two tropical submerged reef ecosystems, 2018. 2. Rankin Bank Environmental Survey Extension, 2014, Habitat assessment of an area southeast of Rankin Bank. 3. Glomar Shoal and Rankin Bank surveys, 2017. GWF-2 Monitoring Programme. Quantitatively surveyed benthic habitats and communities. 4. Temporal Studies survey of Rankin Bank and Glomar Shoal, 2018.	Barrow Island: East and West Coast baseline and monitoring for soft sediment, limestone pavement and coral assemblages (Chevron) Barrow, Montebello and Lowendal Islands: 1. Benthic community monitoring as part of DBCA Western Australian Marine Monitoring Program (2015-ongoing). 2. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013).	Coral Reefs & Filter Feeders 1. Montebello Marine Park, 2019, Identification and qualitative descriptions of benthic habitat. 2. Montebello Australian Marine Parks – 2019 – Baseline survey on benthic habitats. 3. Pluto Trunkline within Montebello Marine Park – Monitoring marine communities.	1. Benthic habitat mapping of the subtidal and intertidal habitats of the islands and shoals. Coral communities in shallow subtidal habitat, intertidal pavement. 2. Coral monitoring at Varanus and Airlie Islands (2000 to present) to identify corals, growth from and percentage cover 3. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013; 2016)
		Methods: 1. LTM transects, diver based (video) photo quadrats, specimen collection. 2. LTM sites, transects, diver-based video quadrat. 3. Diver video transects, still photography, video and in situ visual estimates from transects, quadrats, manta-tows, towed video and ROV. 4. Video point intercept transects recorded by towed video or diver hand-held video camera. 5. Video transects. 6. LTM transects, diver based (video) photo quadrat. 7. Combination of satellite imagery analysis and mapped/monitored areas. 8. CSIRO and DBCA [Doropolous et al. 2022]	1. Towed video transects, photo quadrats using towed video system. 2. Towed video transects, photo quadrats using towed video system. 3. Towed video transects, photo quadrats using towed video system. 4. Towed video transects, photo quadrats using towed video system.	Barrow Island: Coral habitat – mapping, rapid visual assessment, size-class frequency, photoquadrats – live coral cover and survival, tagged corals – growth and survival and coral recruitment Benthic macro-invertebrate surveys – video belt transects Barrow, Montebello and Lowendal Islands: 1. Fixed long-term monitoring sites. Diver video transect. 2. Towed video, benthic trawl and sled.	1. ROV Transects 2. Benthic habitat mapping, multibeam acoustic swathing. 3. ROV video.	1. ROV transects. 2. ROV transects and driver surveys 3. Towed video, benthic trawl and sled

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Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		References and Data:				
		1. DBCA unpublished data. DATAHOLDER: DBCA 2. AIMS 2015. DATAHOLDER: AIMS. 3. Pilbara Marine Conservation Partnership DATAHOLDER: CSIRO 4. Depczynski et al. 2011 DATAHOLDER: AIMS, DBCA and WAMSI. 5. CSIRO 2019 – Ningaloo Outlook Program 6. Murdoch University – HyVista Corporation – April and May 2006 (Kobryn et al 2022) 7. https://allencoralatlas.org/atlas/#7.58/-21.5563/114.9133 (accessed 18/05/2022) 8. Doropolous et al. 2022 - https://www.researchgate.net/publication/358286498_Limitations_to_coral_recovery_along_an_environmental_stress_gradient	1. AIMS 2014a and Abdul Wahab et al., 2018. DATAHOLDER: AIMS. 2. AIMS 2014b. DATAHOLDER: AIMS. 3. Currey-Randall et al., 2019. DATAHOLDER: AIMS 4. Currey-Randall et al., 2019. DATAHOLDER: AIMS	Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia Barrow, Montebello and Lowendal Islands: 1. WA Department of Biodiversity, Conservation and Attractions (DBCA) DATAHOLDER: DBCA 2. Pitcher et al. 2016 DATAHOLDER: CSIRO	1. Advisian 2019 2. Keesing 2019 3. McLean et al. 2019	1. Chevron 2010. DATAHOLDER: Chevron. 2. Quadrant Energy/Santos 2016 DATAHOLDER: Santos 3. CSIRO (2013; 2016). Roland Pitcher. DATAHOLDER
Benthic Habitat (Seagrass and Macroalgae)	SM03 Quantitative assessment using image capture using either diver held camera or towed video. Post analysis into broad groups based on taxonomy and morphology.	Studies:				
		1. Quantitative descriptions of Ningaloo sanctuary zones habitats types including lagoon and offshore areas – Cassata and Collins (2008). 2. CSIRO Ningaloo Outlook Program. 3. Ningaloo Collaboration Cluster: Habitats of the Ningaloo Reef and adjacent coastal areas determined through hyperspectral imagery. 4. Australian Institute of Marine Science – CReefs: Ningaloo Reef Biodiversity Expeditions (2008-2010).		Barrow Island: East Barrow Island – Chevron baseline and monitoring	N/A – see Table D-1	1. Benthic habitat mapping of the subtidal and intertidal habitats of the islands and shoals. Algae communities in shallow subtidal habitat, intertidal pavement. 3. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013; 2016)
		Methods:				
		1. Video transects to ground truth aerial photographs and satellite imagery. 2. Diver video transects. 3. LTM transects, diver based (video) photo quadrat. 4. LTM transects, diver based (video) photo quadrats, specimen collection. 5. Satellite imagery, mapping and monitoring		East Barrow – seagrass photoquadrats (30 m transects) during spring/summer and winter periods Macroalgae photoquadrats, visual census and biomass and specimen sampling		1. ROV transects. 2. Towed video, benthic trawl and sled
		References and Data:				

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group	
		<ol style="list-style-type: none"> Cassata and Collins 2008. DATAHOLDER: Curtin University – Applied Geology. CSIRO – Ningaloo Outlook Program https://research.csiro.au/ningaloo/outlook AIMS - AIMS (2010) - http://www.aims.gov.au/creefs Murdoch University - HyVista Corporation – April and May 2006 (Kobryn et al 2022) https://allencoralatlas.org/atlas/#7.58/-21.5563/114.9133 (accessed 18/05/2022) 		Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia		<ol style="list-style-type: none"> Chevron 2010. DATAHOLDER: Chevron CSIRO (2013, 2016). Roland Pitcher. DATAHOLDER 	
Benthic Habitat (Deeper Water Filter Feeders)	SM03 Quantitative assessment using image capture using towed video. Post analysis into broad groups based on taxonomy and morphology.	Studies:					
		<ol style="list-style-type: none"> WAMSI 2007 deep-water Ningaloo benthic communities' study, Colquhoun and Heyward (2008). CSIRO Ningaloo Outlook Program - Deep reef themes 	As above (SM03 Coral Reefs)		As above (SM03 Coral Reefs)	N/A – See Table D-1	
		Methods:					
		<ol style="list-style-type: none"> Towed video and benthic sled (specimen sampling). Side-scan sonar and AUV transects. 					N/A – See Table D-1
		References and Data:					
		<ol style="list-style-type: none"> Colquhoun and Heyward (eds) 2008. DATAHOLDER: WAMSI, AIMS. CSIRO – Ningaloo Outlook https://research.csiro.au/ningaloo/outlook 					N/A – See Table D-1
Mangroves and Saltmarsh	SM04 Aerial photography and satellite imagery will be used in conjunction with field surveys to map the range and distribution of mangrove communities.	Studies:					
		<ol style="list-style-type: none"> Atmospheric corrected land cover classification, NW Cape. Woodside hold Rapid Eye imagery of the Ningaloo Reef and coastal area. Hyperspectral survey (2006) of Ningaloo Reef and coastal area (not yet analysed for Mangroves). North West Cape sensitivity mapping 2012 included Mangrove Bay. Global mangrove distribution as mapped by the USGS and located on UNEP's Ocean Data viewer. 	N/A – See Table D-1	Barrow Island: East and West Coast baseline and monitoring – mapping (HR aerial imagery) and vegetation surveys	N/A – see Table D-1	<ol style="list-style-type: none"> Study conducted by URS (November 2008 to May 2009) to ground truth aerial photography taken between 2001 and 2009 and to identify mangrove species present in the area. 	
		Methods:					

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		<ol style="list-style-type: none"> 1. Modular Inversion Program. May 2017 2. Rapid Eye imagery – High resolution satellite imagery from October/November/December 2011 and 2017. 3. Remote sensing – acquisition of HyMap airborne hyperspectral imagery and ground truthing data collection. 4. Reconnaissance surveys of the shorelines of the North West Cape and Muiron Islands. 5. Remote sensing study of global mangrove coverage. 		Barrow – Chevron (2015a and b) – HR mapping (aerial images) and vegetation surveys using belt transects – species composition, estimated total canopy cover, total number of trees, pneumatophore density and canopy density.		<ol style="list-style-type: none"> 1. Aerial Photography and Satellite imagery Species identification and community composition.
References and Data:						
		<ol style="list-style-type: none"> 1. EOMAP 2017 DATAHOLDER: Woodside. 2. AAM 2014. Dataholder: Woodside 3. Kobryn et al. 2013. DATAHOLDER: Murdoch University, AIMS; Woodside. 4. Joint Carnarvon Basin Operators, 2012. DATAHOLDER: Woodside and Apache Energy Ltd. 5. http://data.unep-wcmc.org/ 		Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia		1. URS (2010) DATAHOLDER: Chevron Australia
Seabirds	SM05 Visual counts of breeding seabirds, nest counts, intertidal bird counts at high tide.	Studies: <ol style="list-style-type: none"> 1. LTM Study of marine and shoreline birds: 1970-2011. 2. LTM of shorebirds within the Ningaloo coastline (Shorebirds 2020). 3. Exmouth Sub-basin Marine Avifauna Monitoring Program (Quadrant Energy/Santos). 4. Seabird and Shorebird baseline studies, Ningaloo Region – Report on January 2018 bird surveys. 5. Wedge-tailed shearwater foraging behaviour in the Exmouth Region 2018 – satellite tracking 	N/A – See Table D-1	Barrow Island: Barrow Island Seabird Monitoring Program (Chevron) Barrow, Montebello and Lowendal Islands: 1. Johnston et al (2013) general inventory and distribution for the Pilbara region (WA Museum) 2. Santos – Integrated Shearwater Monitoring Program (1994-2016) 3. Santos – monitoring of seabird breeding colonies throughout the Lowendal Group of Islands.	N/A – see Table D-1	<ol style="list-style-type: none"> 1. Migratory waterbirds relevant to the Wheatstone Project on behalf of URS in 2008 - 2009. 2. Quadrant Energy/Santos – Integrated Shearwater Monitoring Program (1994-2016). 3. Exmouth Sub-basin Avifauna Monitoring Program (2013-2014)
Methods:						

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		<p>1. Counts of nesting areas, counts of intertidal zone during high tide.</p> <p>2. The Shorebirds 2020 database comprises the most complete shorebird count data available in Australia. The data have been collected by volunteer counters and BirdLife Australia staff for approximately 150 roosting and feeding sites, mainly in coastal Australia. The data go back as far as 1981 for key areas.</p> <p>3. The Exmouth Sub-basin Marine Avifauna Monitoring Program undertook a detailed assessment of seabird and shorebird use in the Exmouth Sub-basin. Four aerial surveys and four island surveys were conducted between February 2013 and January 2015 for this Program, inclusive of the mainland coasts, of shore islands and a 2,500 km² area of ocean adjacent to the Exmouth Sub-basin.</p> <p>4. Shorebird counts, Shearwater Burrow Density.</p> <p>5. Telemetry (GPS & Satellite tags).</p>		<p>Barrow Island – 2008-ongoing annual surveys: abundance, nest density, presence/absence of egg or chick/fledgling</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> 1. Desktop review (WA Museum) 2. Nest burrow density, presence/absence of eggs or chicks in burrows 3. The distribution and abundance of other nesting seabirds within the Lowendal Island group, including up to 45 islands and islets 		<ol style="list-style-type: none"> 1. Ground counts, aerial surveys of wetlands by helicopter. 2. Burrow count and observation data, burrow density, colony stability, breeding participation, incubation effort and reproductive success has been determined. Tagging data 3. Aerial surveys and onshore island surveys.
		<p>References and Data:</p> <ol style="list-style-type: none"> 1. Johnstone et al. 2013. DATAHOLDER: WA MUSEUM. AMOSC/DBCA (DPaW) 2014. 2. BirdLife Australia DATAHOLDER: Woodside and BirdLife Australia 3. Surman & Nicholson 2015. 4. BirdLife Australia: DATAHOLDER: Woodside 5. Cannel et al. 2019 DATAHOLDER: UWA and BirdLife Australia 		<p>Barrow – Chevron (2015c) DATAHOLDER: Chevron Australia</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> 1. Johnstone et al (2013) DATAHOLDER: (WA Museum) 2. Santos DATAHOLDER: Santos 3. Surman and Nicholson (2012) DATAHOLDER: Santos 		<ol style="list-style-type: none"> 1. Bamford, MJ & AR. 2011. DATAHOLDER: Chevron. 2. Quadrant Energy/Santos. Dataholders. Santos 3. Quadrant Energy/Santos. Dataholders. Santos
Turtles	SM06	Studies:				

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
	Beach surveys (recording species, nests, and false crawls).	<ol style="list-style-type: none"> Exmouth Islands Turtle Monitoring Program. Ningaloo Turtle Program Turtle activity and nesting on the Muiron Islands and Ningaloo Coast (2018). Spatial and temporal use of inter-nesting habitat by sea turtles along the Muiron Islands and Ningaloo Coast – 2018-2019 	N/A – See Table D-1	<p>Barrow Island:</p> <p>Chevron Australia: long term monitoring programs for flatback turtles</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> Marine turtle monitoring as part of DBCA long-term turtle monitoring program (ongoing). LTM Study of Green, Flatback, Hawksbill turtles on beaches within the Barrow, Lowendal and Montebello Island Complex. Santos 2013 turtle nesting survey on the Lowendal islands. Varanus Island Turtle monitoring program (2005 – present). <p>North West Shelf Flatback Conservation Program – conserve North West Shelf stock – scope covers all summer nesting flatback turtles - https://flatbacks.dbca.wa.gov.au/about</p>	N/A – see Table D-1	<ol style="list-style-type: none"> Baseline marine turtle surveys 2009 (included the islands of Serrurier, Bessieres and Thevenard), Pendoley (2009). Exmouth Islands Turtle Monitoring Program (2013 and 2014) North West Shelf Flatback Turtle Conservation Program's Inter-nesting distribution of flatback turtles and industrial development in Western Australia (Thevenard Island)
		<p>Methods:</p> <ol style="list-style-type: none"> Astron (on behalf of Santos) to address a gap in the knowledge of turtle numbers at key locations (offshore islands within the region) that are not currently part of an existing monitoring programs (e.g. the NTP). Field surveys were conducted in October 2013 and January 2014. Surveys were conducted on 12 islands, with each island surveyed once (with the exception of Beach 8 at North Muiron Island) and all tracks counted. Long term trends in marine turtle populations, beach surveys, track counts, best location, mortality counts. On-beach monitoring and aerial surveys. Tagging (satellite transmitter), analysis of interesting, migration and foraging grounds movements and behaviour. 		<p>Barrow Island – Chevron Australia: 2005 -ongoing annual surveys, flatback turtles – nesting success, track counts and satellite tracking, hatchling survival and dispersal.</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> Nesting demographics Nesting demographics Tagging and nest counts Tagging and nest counts at Varanus, Beacon, Bridled, Abutilon and Parakeelya islands. <p>North West Shelf Flatback Conservation Program - https://flatbacks.dbca.wa.gov.au/program-activities</p>		<ol style="list-style-type: none"> Beach/Nesting surveys (counts by species). Beach/Nesting surveys (counts by species). Nesting and tagging studies Satellite tracking methods
		<p>References/Data:</p>				

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		1.Santos – Report. 2. NTP Annual Reports DATAHOLDERS: DBCA. Reports available at http://ningalooturtles.org.au/?page_id=181 3.Rob et al. 2019 DATAHOLDER: DBCA 4.Tucker et al. 2019 DATAHOLDER: DBCA		Barrow Island – Chevron (2015c) DATAHOLDER: Chevron Australia Barrow, Montebello and Lowendal Islands: 1. DBCA 2. Pendoley 2005. AMOSC/DBCA (DPaW) 2014. 3. Santos (2014) DATAHOLDER: Santos 4. Santos (2005-prsesent) DATAHOLDER: Santos North West Shelf Flatback Conservation Program https://flatbacks.dbca.wa.gov.au/program-activities		1. Pendoley 2009. DATAHOLDER: Chevron. 2. Quadrant Energy/Santos. Dataholders. Santos 3. DBCA. Dataholder 4. Pendoley Environment -Whitlock, Pendoley and Hamann (2010-2011)
Fish	SM09 Baited Remote Underwater Video Stations (BRUVS), Visual Underwater Counts (VUC), Diver Operated Video (DOV).	Studies: 1. AIMS/DBCA 2014 Baseline Ningaloo Survey – repeat and expansion on the LTM (Co-funded survey: Woodside and AIMS). 2. Demersal fish populations – baseline assessment (AIMS/WAMSI). 3. DBCA study measured Species Richness, Community Composition, and Target Biomass, through UVC. BRUVS studies determining max N, Species Richness, and Biomass. 4. Pilbara Marine Conservation Partnership Stereo BRUVS in shallow water (~10m) in 2014 in northern region of the Ningaloo Marine Park, in shallow water (~10m) inside the lagoonal reef of the Ningaloo Marine Park in 2016, in deep water (~40m) across the length of the Ningaloo Marine Park in 2015, in shallow water outside of Ningaloo Reef from Waroora to Jurabi in 2015 and offshore of the Muiron Islands in 2015. 5. Elasmobranch faunal composition of Ningaloo Marine Park. 6. Juvenile fish recruitment surveys at Ningaloo reef. 7. Demersal fish assemblage sampling method comparison 8. Ningaloo Outlook (CSIRO) - Shallow and Deep Reefs Program Methods:	1. Glomar Shoal and Rankin Bank Environmental Survey Report, 2013, quantitatively surveyed benthic habitats and communities. AIMS report to Woodside. Scientific Publication - Biodiversity and spatial patterns of benthic habitat and associated demersal fish communities at two tropical submerged reef ecosystems, 2018. 2. Rankin Bank Environmental Survey Extension, 2014, Habitat assessment of an area southeast of Rankin Bank. 3. Glomar Shoal and Rankin Bank surveys, 2017. GWF-2 Monitoring Programme. Quantitatively surveyed benthic habitats and communities. 4. Temporal Studies survey of Rankin Bank and Glomar Shoal, 2018.	Barrow Island: Chevron: East and West Coast intertidal and subtidal baseline and monitoring Barrow, Montebello and Lowendal Islands: 1. Pilbara Marine Conservation Partnership Stereo BRUVS drops in shallow water (~10m) from Exmouth to Barrow Islands in 2015. 2. Finfish monitoring as part of DBCAs Western Australian Marine Monitoring Program (2015-ongoing).	1. CSIRO – Fish Diversity. 2. Fish species richness and abundance.	1.Pilbara Marine Conservation Partnership Stereo BRUVS drops in deep water (20-55m) offshore of Bessieres Island in 2016.

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Ningaloo Coast and the Muiron Islands	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		1. UVC surveys. 2. BRUVS Study with 304 video samples at three specific depth ranges (1-10 m, 10-30 m and 30-110m). 3. UVC surveys. 4. Stereo BRUVS 5. Snorkel and Scuba surveys. 5. Underwater visual census. 6. Diver operated video. 7. Diver UVC. 8. Diver UVC, stereo BRUVs	1. BRUVs. 2. BRUVs. 3. BRUVs. 4. BRUVs.	Barrow Island – Chevron (2015a and b) – demersal fish: stereo BRUVS (subtidal habitats) and netting combination for mangrove habitat Barrow, Montebello and Lowendal Islands: 1. Stereo BRUVS. 2. Diver underwater visual surveys (UVS)	1. Semi V Wing trawl net or an epibenthic sled. 2. ROV Video.	1. Stereo BRUVs
		References/Data: 1. AIMS 2014. DATAHOLDER: AIMS/Woodside. 2. Fitzpatrick et al. 2012. DATAHOLDERS: WAMSI, AIMS. 3. DBCA unpublished data. DATAHOLDER: DBCA/AIMS. 4. CSIRO Data DATAHOLDER: CSIRO Data Centre (██████████). 5. Stevens, J.D., P.R., White, W.T., McAuley, R.B., Meekan, M.G. 2009. 6. WAMSI unpublished data DATAHOLDER: AIMS (██████████). 7. DATAHOLDER: WAMSI 8. CSIRO – Ningaloo Outlook Program https://research.csiro.au/ningaloo/outlook	1. AIMS 2014a and Abdul Wahab et al., 2018. DATAHOLDER: AIMS. 2. AIMS 2014b. DATAHOLDER: AIMS. 3. Currey-Randall et. al., 2019. DATAHOLDER: AIMS 4. Currey-Randall et. al., 2019. DATAHOLDER: AIMS	Barrow Island – Chevron Australia (2015a and b) DATAHOLDER: Chevron Barrow, Montebello and Lowendal Islands: 1. Unpublished report CSIRO DATAHOLDER: CSIRO, CSIRO Data centre (██████████) 2. DBCA	1. Keesing 2019. 2. McLean et al. 2019.	1. CSIRO. DATAHOLDER: CSIRO (██████████)

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https://www.chevronaustralia.com/Files/PDF/Wheatstone%20Draft%20EIS_ERMP%20Technical%20Appendices%20N11%20to%20N15%20an.pdf Unpublished Report for ChevronAustralia Pty Ltd.
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ANNEX E: TACTICAL RESPONSE PLANS

TACTICAL RESPONSE PLANS
Exmouth
Mangrove Bay
Turquoise Bay
Yardie Creek
Muiron Islands
Jurabi to Lighthouse Beaches Exmouth
Ningaloo Reef – Refer to Mangrove/ Turquoise Bay and Yardie Creek
Exmouth Gulf
Shark Bay Area 1: Carnarvon to Wooramel
Shark Bay Area 2: Wooramel to Petite Point
Shark Bay Area 3: Petite Point to Dubaut Point
Shark Bay Area 4: Dubaut Point to Herald Bight
Shark Bay Area 5: Herald Bight to Eagle Bluff
Shark Bay Area 6: Eagle Bluff to Useless Loop
Shark Bay Area 7: Useless Loop to Cape Bellefin
Shark Bay Area 8: Cape Bellefin to Steep Point
Shark Bay Area 9: Western Shores of Edel Land
Shark Bay Area 10: Dirk Hartog Island
Shark Bay Area 11: Bernier and Dorre Islands
Abrohlos Islands: Pelseart Group
Abrohlos Islands: Wallabi Group
Abrohlos Islands: Easter Group
Dampier
Rankin Bank & Glomar Shoals
Barrow and Lowendal Islands
Pilbara Islands – Southern Island Group
Montebello Island – Stephenson Channel Nth TRP
Montebello Island – Champagne Bay and Chippendale channel TRP
Montebello Island – Claret Bay TRP
Montebello Island – Hermite/Delta Island Channel TRP
Montebello Island – Hock Bay TRP
Montebello Island – North and Kelvin Channel TRP
Montebello Island – Sherry Lagoon Entrance TRP
Withnell Bay
Holden Bay
King Bay
No Name Bay / No Name Beach
Enderby Island – Dampier
Rosemary Island – Dampier
Legendre Island – Dampier
Karratha Gas Plant

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KGP to Withnell Creek
KGP to Northern Shore
KGP Fire Pond & Estuary
KGP to No Name Creek
Broome
Sahul Shelf Submerged Banks and Shoals
Clerke Reef (Rowley Shoals)
Imperieuse Island (Rowley Shoals)
Mermaid Reef (Rowley Shoals)
Scott Reef
Oiled Wildlife Response
Exmouth
Dampier region
Shark Bay

APPENDIX E: NOPSEMA REPORTING FORMS

NOPSEMA Recordable Environmental Incident Monthly Reporting Form:

<https://www.nopsema.gov.au/assets/Forms/A198750.doc>

Report of an accident, dangerous occurrence or environmental incident:

<https://www.nopsema.gov.au/assets/Forms>

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APPENDIX F: STAKEHOLDER CONSULTATION

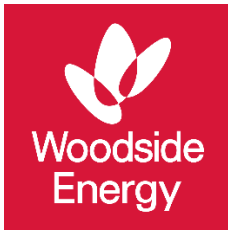
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Appendix F

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

- **Table 1: Assessment of Relevance**
- **Consultation Activities**
- **Table 2: Consultation Report with Relevant Persons or Organisations**
- **Table 3: Engagement Report with Persons or Organisations Assessed as Not Relevant**
- **Record of Consultation**

Date: December 2023

Revision: 0

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RELEVANCY ASSESSMENT

Assessment of Relevant Persons for the Proposed Activity

The result of Woodside’s assessment of relevant persons in accordance with regulation 11A(1) is outlined below at **Table 1** and **Table 2**.

Persons or organisations that Woodside assessed as not relevant but nonetheless chose to contact at its discretion in accordance with **Section 6.3.4** in the EP or self-identified and Woodside assessed as not relevant are summarised below at **Table 1** and **Table 3**.

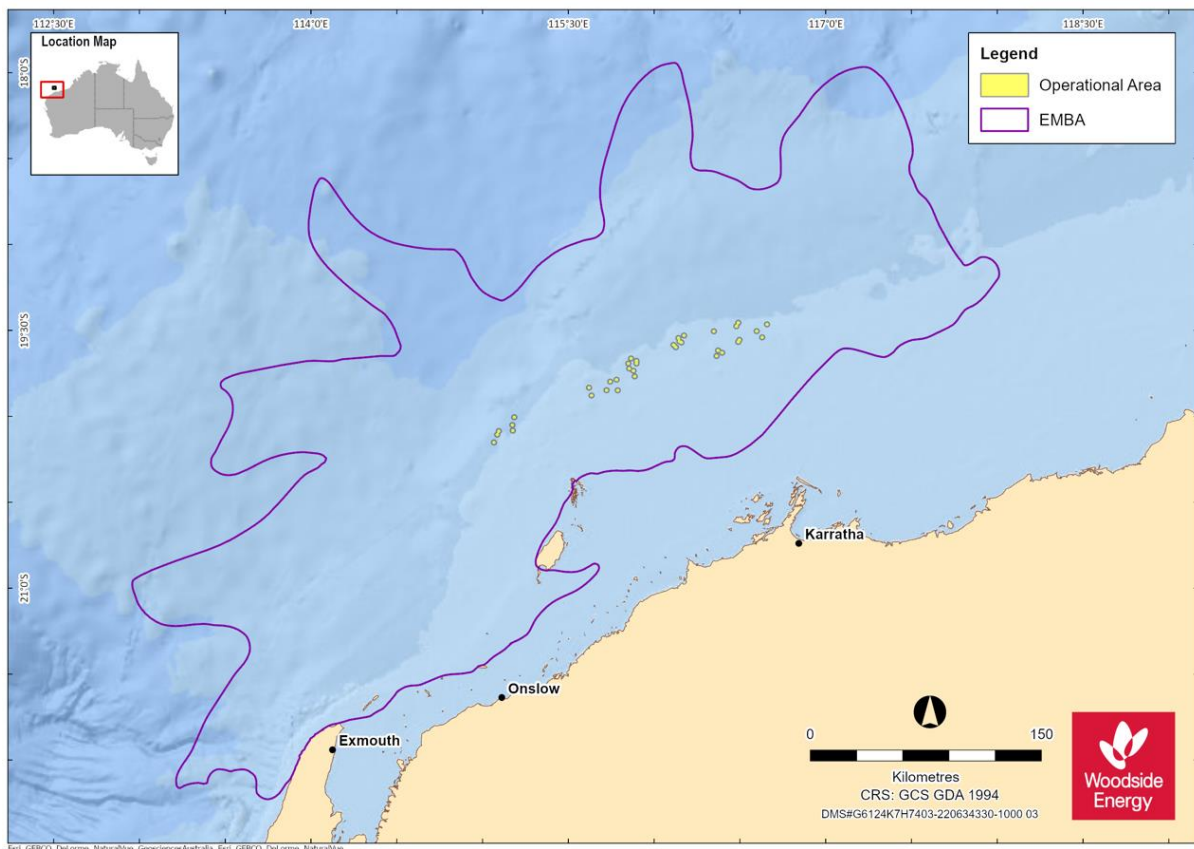


Figure 1: Operational Areas and EMBA for this EP

Table 1: Assessment of Relevance

Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Commonwealth and WA State Government Departments or Agencies – Marine			
Australian Border Force (ABF)	Responsible for coordinating maritime security	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). ABF’s responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes
Australian Communications and Media Authority (ACMA)	Regulator for communications and media	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). ACMA’s responsibilities aren’t relevant to the activity as telecommunications lines do not overlap the Operational Areas but are in proximity to it. Woodside chose to contact ACMA at its discretion in line with Section 6.3.7 in the EP.	No
Australian Fisheries Management Authority (AFMA)	Responsible for managing Commonwealth fisheries	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). No Commonwealth fisheries are active in the Operational Areas. AFMA’s responsibilities may be relevant to the activity as the North West Slope Trawl Fishery, Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Australian Hydrographic Office (AHO)	Responsible for maritime safety and Notices to Mariners	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). AHO’s responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes
Australian Maritime Safety Authority (AMSA) – Marine Safety	Statutory agency for vessel safety and navigation	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). AMSA – Marine Safety’s responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Australian Maritime Safety Authority (AMSA) – Marine Pollution	Legislated responsibility for oil pollution response in Commonwealth waters	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). AMSA – Marine Pollution’s responsibilities may be relevant to the activity as the proposed activity has a hydrocarbon spill risk which may require AMSA response in Commonwealth waters.	Yes
Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries (formerly DAWE)	Responsible for implementing Commonwealth policies and programs to support agriculture, fishery, food and forestry industries	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). No Commonwealth fisheries are active in the Operational Areas. DAFF – Fisheries responsibilities may be relevant to the activity as the North West Slope Trawl Fishery, Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Department of Defence (DoD)	Responsible for defending Australia and its national interests.	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(a). DoD’s responsibilities may be relevant to the activity as defence training areas lie within the EMBA.	Yes
Department of Primary Industries and Regional Development (DPIRD)	Responsible for managing State fisheries	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 11A(1)(b). The Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery are active in the Operational Areas. The Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery, Specimen Shell Managed Fishery, West Australian Sea Cucumber Managed Fishery and West Coast Deep Sea Crustacean Managed Fishery have been active in the EMBA within the last 5 years. DPIRD’s responsibilities may be relevant to the activity as the government department responsible for State fisheries.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Department of Transport (DoT)	Legislated responsibility for oil pollution response in State waters	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 11A(1)(b). The proposed activity has a hydrocarbon spill risk, which may require DoT response in State waters.	Yes
Department of Planning, Lands and Heritage (DPLH)	Responsible for state level land use planning and management, and oversight of Aboriginal cultural heritage and built heritage matters.	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 11A(1)(b). There is known Maritime Cultural Heritage overlapping the EMBA.	Yes
Western Australian Museum	Manages 200 shipwreck sites of the 1,500 known to be located off the Western Australian coast.	Woodside has applied its methodology for 'Historical cultural heritage groups or organisations' under regulation 11A(1)(d). There is known shipwrecks overlapping the EMBA which the Western Australian Museum may be responsible for.	Yes
Pilbara Ports Authority	Responsible for the operation of the Port of Dampier.	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 11A(1)(b). The proposed activity does not have the potential to impact Pilbara Ports Authority's responsibilities as the EMBA does not overlap the Pilbara Ports Authority's area of responsibility.	No
Commonwealth and WA State Government Departments or Agencies – Environment			
Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel) (formerly DAWE)	DAFF administers, implements and enforces the Biosecurity Act 2015. The Department requests to be consulted where an activity has the potential to transfer marine pests. DAFF also has inspection and reporting requirements to	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 11A(1)(a). DAFF – Biosecurity's (formerly DAWE) responsibilities may be relevant to the proposed activities in the EMBA in the prevention of introduced marine species.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
	<p>ensure that all conveyances (vessels, installations and aircraft) arriving in Australian territory comply with international health regulations and that any biosecurity risk is managed.</p> <p>The Department requests to be consulted where an activity involves the movement of aircraft or vessels between Australia and offshore petroleum activities either inside or outside Australian territory.</p>		
<p>Department of Climate Change, Energy, the Environment and Water (DCCEEW) <i>(formerly DAWE)</i></p>	<p>Responsible for implementing Commonwealth policies and programs to support climate change, sustainable energy use, water resources, the environment and our heritage.</p> <p><i>Administers the Underwater Cultural Heritage Act 2018 in collaboration with the States, Northern Territory and Norfolk Island, which is responsible for the protection of shipwrecks, sunken aircraft and other types of underwater heritage and their associated artefacts in Commonwealth waters.</i></p>	<p>Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 11A(1)(a).</p> <p>DCCEEW's responsibilities may be relevant to the proposed activities in the EMBA as there are potential environmental impacts from the proposed activity.</p> <p>There is known Maritime Cultural Heritage overlapping the EMBA.</p>	<p>Yes</p>

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Director of National Parks (DNP)	Responsible for the management of Commonwealth parks and conservation zones.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 11A(1)(a). DNP's responsibilities may be relevant to the activity as DNP requires an awareness of activities that occur within AMPs, and an understanding of potential impacts and risks to the values of parks (NOPSEMA guidance note: N-04750-GN1785 A620236, June 2020). Titleholders are required to consult DNP on offshore petroleum and greenhouse gas exploration activities if they occur in, or may impact on the values of marine parks, including where potential spill response activities may occur in the event of a spill (i.e. scientific monitoring).	Yes
Ningaloo Coast World Heritage Advisory Committee (NCWHAC)	Supports the DBCA to manage the Ningaloo Coast World Heritage Area.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 11A(1)(a). The NCWHAC's responsibilities may be relevant to the activity as the EMBA overlaps the Ningaloo Marine Park.	Yes
Department of Biodiversity, Conservation and Attractions (DBCA)	Responsible for managing WA's parks, forests and reserves to achieve wildlife conservation and provide sustainable recreation and tourism opportunities.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 11A(1)(b). The DBCA's responsibilities may be relevant to the activity as EMBA overlaps WA parks, forests or reserves. Activities have the potential to impact marine tourism in the EMBA.	Yes
Commonwealth and State Government Departments or Agencies – Industry			
Department of Industry, Science and Resources (DISR) <i>(formerly DISER)</i>	Department of relevant Commonwealth Minister.	Required to be consulted under regulation 11A(1)(a).	Yes
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) <i>(formerly DMIRS)</i>	Department of relevant State Minister	Required to be consulted under regulation 11A(1)(c).	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Commonwealth Commercial fisheries and representative bodies			
North West Slope and Trawl Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
Southern Bluefin Tuna Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, it has not been active in the Operational Areas or EMBA within the last 5 years. Woodside does not consider that the proposed activity will present a risk to licence holders, given since 1992, the majority of Australian catch has concentrated in south-eastern Australia. (Patterson et al., 2022). In addition, given fishing methods by licence holders for species fished in this fishery (Australia has a 35% share of total global allowable catch of Southern Bluefin Tuna, which is value-added through tuna ranching near Port Lincoln (South Australia), or fishing effort in New South Wales (Australian Southern Bluefin Tuna Industry Association).	No
Western Deepwater Trawl Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.	Yes
Western Skipjack Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, it has not been active in the Operational Areas or EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given the fishery spans the Australian Fishing Zone west of Victoria and the Torres Strait. The Fishery is not currently active and no fishing has occurred since 2009 (Patterson et al.,	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		2022). In addition, interactions are not expected given the species' pelagic distribution fishing methods for species fished by licence holders.	
Western Tuna and Billfish Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, it has not been active in the Operational Areas or EMBA within the last 5 years.	No
Commonwealth Fisheries Association (CFA)	Represents the interests of commercial fishers with licences in Commonwealth waters	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). No fisheries are active in the Operational Areas. The North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA. CFA's functions may be relevant to the activity as North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Australian Southern Bluefin Tuna Industry Association (ASBTIA)	Represents the interests of the Southern Bluefin Tuna Fishery and Western Skipjack Fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The Southern Bluefin Tuna Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the Southern Bluefin Tuna Fishery, the ASBTIA has also been assessed as not relevant. Woodside has provided information to the ASBTIA at its discretion in line with Section 5.3.7 on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.	No
Tuna Australia	Represents the interests of the Western Tuna and Billfish Fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The Western Tuna and Billfish Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the Western Tuna and Billfish Fishery, Tuna Australia has also been assessed as not relevant. Woodside has provided information to Tuna Australia at its discretion in line with Section 5.3.7 of the EP on AFMA advice that it expects all Commonwealth fishers who have	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.	
Pearl Producers Association (PPA)	Peak representative organisation of The Australian South Sea Pearling Industry, with members in Western Australia and the Northern Territory	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The Pearl Oyster Managed Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the Pearl Oyster Managed Fishery, the PPA has also been assessed as not relevant.	No
State Commercial fisheries and representative bodies			
Marine Aquarium Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas, it has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
South West Coast Salmon Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, the fishery has not been active in the Operational Areas or EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given fishers are active south of Perth and from the beach (previous WAFIC advice). Further, no fishing occurs north of the Perth Metropolitan Area and therefore, no effort occurs within the Operational Areas or EMBA.	No
Mackerel Managed Fishery (Area 2)	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Area 2 of the fishery overlaps the Operational Areas and EMBA and has been active in the Operational Areas within the last 5 years.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Area 3 of the fishery does not overlap the Operational Areas. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years. Under a fee for service agreement with WAFIC Woodside has consulted Mackerel Managed Fishery (Area 2) as relevant persons.	
Pilbara Crab Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas, it has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
West Coast Deep Sea Crustacean Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas, it has not been active in the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years. Under a fee for service agreement with WAFIC Woodside has consulted West Coast Deep Sea Crustacean Managed Fishery as relevant persons as West Coast Deep Sea Crustacean Managed Fishery has requested to be kept informed regarding the proposed activities.	Yes
Specimen Shell Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas, it has not been active in the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
Abalone Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, the fishery has not been active in the Operational Areas and EMBA within the last 5 years.	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Woodside does not consider that the activity will present a risk to licence holders, given this is a dive and wade fishery with distribution to 5 m depth for Roe's abalone and 40 m depth for greenlip / brownlip abalone (DOF, 2011).	
Pearl Oyster Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, the fishery has not been active in the Operational Areas or EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given fishing methods and location for species fished by licence holders (fishing effort is mostly focussed in shallow coastal waters of 10-15 m depth, with a maximum depth of 35 m) (Lulofs et al. 2002).	No
Land Hermit Crab Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas and has not been active in the Operational Areas within the last 5 years. This fishery overlaps the EMBA and has not been active in the EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given the Land Hermit Crab Fishery specifically targets the Australian land hermit crab (<i>Coenobita variabilis</i>). The fishery operates throughout the year and is the only land-based commercial fishery in Western Australia).	No
Onslow Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas, it has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
Western Australian Sea Cucumber Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Although the fishery overlaps the Operational Areas, it has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	
Exmouth Gulf Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas and has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
West Coast Rock Lobster Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas. Although the fishery overlaps the EMBA, the fishery has not been active in the EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given the targets the western rock lobster (<i>panulirus cygnus</i>), colloquially known as crayfish, on western Australia's coast between Shark Bay and Cape Leeuwin.	No
Nickol Bay Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). The fishery does not overlap the Operational Areas and has not been active in the Operational Areas within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
WA North Coast Shark Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d). Although the fishery overlaps the Operational Areas and EMBA, the fishery has not been active in the Operational Areas or EMBA within the last 5 years. Woodside does not consider that the activity will present a risk to licence holders, given the fishery has not been an active fishery since 2008/09 (DPIRD).	No
Demersal Scalefish Fishery: Pilbara Trawl Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Pilbara Trap Fishery		<p>The fishery overlaps the Operational Areas and EMBA and has been active in the Operational Areas and EMBA within the last 5 years.</p> <p>Under a fee for service agreement with WAFIC Woodside has consulted Pilbara Trawl Fishery as relevant persons.</p>	
Pilbara Line Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).</p> <p>The fishery overlaps the Operational Areas and EMBA and has been active in the Operational Areas and EMBA within the last 5 years.</p> <p>Under a fee for service agreement with WAFIC Woodside has consulted Pilbara Trap Fishery as relevant persons.</p>	Yes
	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).</p> <p>The fishery overlaps the Operational Areas and EMBA and has been active in the Operational Areas and EMBA within the last 5 years.</p> <p>Under a fee for service agreement with WAFIC Woodside has consulted Pilbara Line Fishery as relevant persons.</p>	Yes
Western Australian Fishing Industry Council (WAFIC)	Represents the interests of commercial fishers with licences in State waters.	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).</p> <p>The Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery have been active in the Operational Areas within the last 5 years.</p> <p>The Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery, Specimen Shell Managed Fishery, West Australian Sea Cucumber Fishery and West Coast Deep Sea Crustacean Managed Fishery have been active in the EMBA within the last 5 years.</p> <p>WAFIC's functions may be relevant to the activity as the peak representative body for State fisheries.</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Under fee for service WAFIC issued consultation materials to relevant commercial fisheries licence holders.</p> <p>Woodside acknowledges WAFIC's consultation guidance and has applied this by consulting fisheries that are assessed as having a potential for interaction in the Operational Areas directly and consulting fisheries assessed as having a potential for interaction in the EMBA via WAFIC.</p>	
Western Rock Lobster Council	Represents the interests of the Western Rock Lobster Managed Fishery.	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 11A(1)(d).</p> <p>The West Coast Rock Lobster Managed Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the West Coast Rock Lobster Managed Fishery, the Western Rock Lobster Council has also been assessed as not relevant.</p>	No
Recreational marine users and representative bodies			
Exmouth Recreational Marine Users	Exmouth-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).</p> <p>Andro Maritime Services Australia, Aquatic Adventure Exmouth, Birds Eye View, Blue Horizon Charters, Blue Lightning Charters, Cape Immersion Tours, Coastal Adventure Tours, Coral Bay Ecotours, Cruise Ningaloo, Dampier Island Tourism, Dive Ningaloo, Evolution Fishing Charters, Exmouth Adventure Co., Exmouth Dive Centre, Exmouth Fly Fishing, Exmouth Game Fishing Club, Indian Chief Charters, Innkeeper Sport Fishing Charter, Kings Ningaloo Reef Tours, Live Ningaloo, Mahi Fishing Charters, Montebello Island Safaris, Ningaloo Aviation, Ningaloo Blue, Ningaloo Coral Bay Boats, Ningaloo Discovery, Ningaloo Ecology Cruises, Ningaloo Fly Fishing, Ningaloo Marine Interaction, Ningaloo Reef Dive, Ningaloo Reef to Range Tours, Ningaloo Safari Tours, Ningaloo Sportfishing Charters, Ningaloo Whaleshark n Dive, Ningaloo Whaleshark Swim, Ocean Eco Adventures, On Strike Charters, Peak Sportfishing Charters, Pelican Charters, Sail Ningaloo, Sea Force Charters, Set the Hook, The Mobile Observatory, Three Islands, Top Gun Charters, Ultimate WaterSports, Venture Ningaloo, View Ningaloo, Warrior Princess Charters, Yardi Creek Boat Tours.</p>	Yes

Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Activities have the potential to impact Exmouth-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.	
Gascoyne Recreational Marine Users	Gascoyne-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).</p> <p>Silverado Charters Pty Ltd, Reel Force Charters Pty Ltd, D & N Nominees Pty Ltd, Lyons Family Super Pty Ltd, Seafresh Holdings Pty Ltd, Eco-Abrolhos Pty Ltd, C Emery Fishing Pty Ltd, On Strike Charters (Wa) Pty Ltd, Melkit Pty Ltd, Maritime Engineering Services Pty Ltd, G. C. Bass Nominees Pty Ltd, Brefjen Nominees Pty Ltd, W.A Maritime Investments Pty Ltd, Blue Juice Tours Pty Ltd, Surefire Marine Services Pty Ltd, Makalee Pty Ltd, L & S Family Holdings Pty Ltd, Bondall Pty Ltd, Kw Marine Pty Ltd, Sharkbay Charters Pty Ltd, Bluecity Enterprises Pty Ltd, Jostan Holdings Pty Ltd, Monkey Mia Yacht Charters Pty Ltd, On Strike Charters (Wa) Pty Ltd, Rainfield Pty Ltd, Monster Sportfishing Adventures Pty Ltd, Lulamanzi Investments Pty Ltd, Millennial Charters Pty Ltd, Chapel Nominees Pty Ltd, Regalchoice Holdings Pty Ltd, Fawesome Expeditions Pty Ltd, On Strike Charters (Wa) Pty Ltd, The Great Escape Charter Company Pty Ltd, Aoa International Pty Ltd, Fire Tiger Pty Ltd.</p> <p>Activities have the potential to impact Gascoyne-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Pilbara/Kimberley Recreational Marine Users	Pilbara/Kimberley-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).</p> <p>Willie Creek Pearl Farm Pty Ltd, Super Yachts Perth Pty Ltd, Silverado Charters Pty Ltd, Bloor Street Investments Pty Ltd, Lugger Enterprises Pty Ltd, Eco-Abrolhos Pty Ltd, C Emery Fishing Pty Ltd, Discovery Holiday Parks Pty Limited, Kimberley Marine Pty Ltd, Coral Princess Cruises (Nq) Pty Ltd, Marine Agents Australia Pty Ltd, Maritime Engineering Services Pty Ltd, G. C. Bass Nominees Pty Ltd, Coastway Investments Pty Ltd, Kcc Group Pty Ltd, Cm Ventures Pty Ltd, Lombadina Aboriginal Corporation, Australian Port And Marine Services Pty Ltd, Hartley Motorcycles Pty Ltd, Humbug Fishing Pty Ltd, Brefjen Nominees Pty Ltd, Melkit Pty Ltd, W.A Maritime Investments Pty Ltd, Blue Juice Tours Pty Ltd, Kw Marine Pty Ltd, L & S Family Holdings Pty Ltd, Bondall Pty Ltd,</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Lake Argyle Cruises Pty Ltd, Sealife Charters Pty Ltd, Mal Miles Adventures Pty Ltd, Mackerel Islands Pty Ltd, Diversity Charter Company Wa Pty Ltd, Split Tide Pty Ltd, Broome Tours Pty Ltd, North Star Cruises Australia Pty Ltd, Charter Express Pty Ltd, Sea 2 Pty Ltd, Hotel And Resort Investments Pty Ltd, L & S Family Holdings Pty Ltd, Down The Line Charters Pty Ltd, Kingfisher Island Resort Pty Ltd, Rstg Pty Limited, Sealife Charters Pty Ltd, Coral Princess Cruises (Nq) Pty Ltd, Kimberley Quest Adventures Pty Ltd, Monster Sportfishing Adventures Pty Ltd, Ocean Charters Pty Ltd, Lulamanzi Investments Pty Ltd, Millennial Charters Pty Ltd, Chapel Nominees Pty Ltd, Fawesome Expeditions Pty Ltd, The Great Escape Charter Company Pty Ltd, Aoa International Pty Ltd, Kimberley Getaway Cruises Pty Ltd, King Sound Resort Hotel Pty.</p> <p>Activities have the potential to impact Pilbara/Kimberley-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	
Karratha Recreational Marine Users	Karratha-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).</p> <p>Nickol Bay Sport Fishing Club, Archipelago Adventures, Hampton Harbour Boat & Sailing Club, King Bay Game Fishing Club, Marine Rescue Dampier, Port Walcott Volunteer Marine Rescue, Port Walcott Yacht Club, Reef Seeker Charters, West Pilbara Volunteer Sea Search and Rescue Group.</p> <p>Activities have the potential to impact Karratha-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Recfishwest	Represents the interests of recreational fishers in WA.	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).</p> <p>Activities have the potential to impact recreational fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Marine Tourism WA	Represents the interests of marine tourism in WA.	Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d).	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Activities have the potential to impact recreational fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.	
WA Game Fishing Association	Represents the interests of game fishers in WA.	Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 11A(1)(d). Activities have the potential to impact game fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.	Yes
Titleholders and Operators			
Chevron Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Western Gas	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Exxon Mobil Australia Resources Company	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Shell Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
BP Developments Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Carnarvon Energy	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d).	Yes

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		Titleholder or Operator's permit areas overlaps the EMBA.	
Osaka Gas Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Tokyo Gas Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
JERA Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
PE Wheatstone	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Kyushu Electric Wheatstone	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Eni Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Finder Energy (Finder No 16) (and subsidiary Searcher Energy).	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
KUFPEC	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d).	Yes

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		Titleholder or Operator's permit areas overlaps the EMBA.	
Vermillion Oil & Gas Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Santos NA Energy Holdings / Santos Ltd / Santos WA Northwest / Santos Offshore / Santos WA Southwest / Santos (BOL) / Santos WA PVG	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
OMV Australia / Sapura OMV Upstream	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
KATO Energy / KATO Corowa / KATO NWS / KATO Amulet	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
INPEX Alpha	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
JX Nippon O&G Exploration (Australia)	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Longreach Capital Investments / Beagle No 1	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 11A(1)(d). Titleholder or Operator's permit areas overlaps the EMBA.	Yes

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Peak Industry Representative bodies			
Australian Energy Producers (AEP) (formerly APPEA)	Represents the interests of oil and gas explorers and producers in Australia.	Woodside has applied its methodology for 'Peak Industry Representative bodies' under regulation 11A(1)(d). APPEA's responsibilities are identified as having an intersect with Woodside's planned activities in the EMBA.	Yes
Traditional Custodians and nominated representative corporations			
Murujuga Aboriginal Corporation (MAC)	Representative Aboriginal Corporation	Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d). MAC is the Nominated Representative Corporation under the Burrup and Maitland Industrial Estates Agreement (BMIEA), which is coastally adjacent to the EMBA. The EMBA does not overlap the Murujuga National Park. MAC was established to represent the members of competing Native Title claims over Murujuga, collectively known as the Ngarda Ngarli and comprising Mardudhunera, Ngarluma, Yaburara, Yindjibarndi and Wong-Goo-Tt-Oo people. The determination of the competing Native Title claims resulted in no native title being found over the lands subject to the BMIEA or below the low water mark. MAC also owns and co-manages the Murujuga National Park, is responsible for the Dampier Archipelago National Heritage Place and is progressing the World Heritage nomination of the Murujuga Cultural Landscape.	Yes
Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)	Representative Aboriginal Corporation	Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d). The Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People native title claim, which the Baiyungu, Thalanyji and Yinggarda people are party to, overlaps the EMBA. The NTGAC and YAC are the Registered Native Title Body Corporates holding native title on behalf of the Baiyungu, Thalanyji and Yinggarda people. The NTGAC is also party, with the WA State Government, to the Ningaloo Conservation Estate Indigenous Land Use Agreement (the ILUA), which is coastally adjacent to the EMBA. The NTGAC is responsible for the joint management of the inner Ningaloo Marine	Yes

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		<p>Park (State Waters), the Cape Range National Park and new conservation areas extending along the Ningaloo Coast, which runs in parallel to the outer Ningaloo Marine Park in Commonwealth waters.</p> <p>The NTGAC's nominated representative is the Yamatji Marlpa Aboriginal Corporation (YMAC) and the NTGAC executive officer and contact officer pursuant to the Corporations (Aboriginal and Torres Strait Islander) Act 2006 is employed by YMAC. Woodside has therefore consulted the NTGAC, via YMAC.</p>	
Buurabalayji Thalanyji Aboriginal Corporation (BTAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Thalanyji native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, for which BTAC is the Registered Native Title Body Corporate.</p> <p>BTAC is also party to the Macedon ILUA which is coastally adjacent to the EMBA.</p>	Yes
Yinggarda Aboriginal Corporation (YAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People native title claim, which the Baiyungu, Thalanyji and Yinggarda people are party to, overlaps the EMBA. The NTGAC and YAC are the Registered Native Title Body Corporates holding native title on behalf of the Baiyungu, Thalanyji and Yinggarda people.</p> <p>The Yinggarda Aboriginal Corporation's nominated representative is Gumala Aboriginal Corporation.</p>	Yes
Kariyarra Aboriginal Corporation (KAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Kariyarra native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, for which the Kariyarra Aboriginal Corporation is the Registered Native Title Body Corporate.</p> <p>The Kariyarra Aboriginal Corporation is also party to the Kariyarra Aboriginal Corporation which is coastally adjacent to the EMBA.</p>	Yes
Wirrawandi Aboriginal Corporation (WAC)	Representative Aboriginal Corporation	Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).	Yes

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		<p>The Yaburara & Mardudhunera People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, for which WAC is the Registered Native Title Body Corporate.</p> <p>WAC is party to the Cape Preston Project Deed (YM Mardie ILUA), Cape Preston West Export Facility and KM & YM Indigenous Land Use Agreement 2018, which are coastally adjacent to the EMBA.</p>	
Robe River Kuruma Aboriginal Corporation (RRKAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Robe River Kuruma Aboriginal Corporation is party to the RTIO Kuruma Marthudunera People ILUA and KM & YM Indigenous Land Use Agreement 2018, which are coastally adjacent to the EMBA.</p>	Yes
Ngarluma Aboriginal Corporation (NAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Ngarluma/Yindjibarndi People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, for which NAC and the Yindjibarndi Aboriginal Corporation are the Registered Native Title Body Corporates.</p> <p>NAC is also party to the Anketell Port, Infrastructure Corridor and Industrial Estates Agreement and RTIO Ngarluma Indigenous Land Use Agreement (Body Corporate Agreement) which are coastally adjacent to the EMBA.</p>	Yes
Yindjibarndi Aboriginal Corporation	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>The Ngarluma/Yindjibarndi People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, for which NAC and the Yindjibarndi Aboriginal Corporation are the Registered Native Title Body Corporates.</p>	Yes
Native Title Representative Bodies			
Yamatji Marlpa Aboriginal Corporation (YMAC)	Native Title Representative Body	Woodside has applied its methodology for 'Native Title Representative Bodies' under regulation 11A(1)(d).	Yes

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		<p>YMAC is the Native Title Representative Body for the Yamatji and Pilbara regions of Western Australia. As such, they are not a Prescribed or Registered Native Title Body Corporate but exist to assist native title claimants and holders.</p> <p>The NTGAC's nominated representative is YMAC. Woodside has therefore consulted the NTGAC and Nanda Aboriginal Corporation via YMAC.</p> <p>Woodside contacted YMAC to seek guidance with respect to the appropriate Traditional Custodian group(s) to engage with respect to the proposed activity where this was not clear.</p> <p>YMAC's functions may be relevant to the proposed activity in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation.</p>	
Kimberley Land Council (KLC)	Native Title Representative Body	<p>Woodside has applied its methodology for 'Native Title Representative Bodies' under regulation 11A(1)(d).</p> <p>KLC is the Native Title Representative Body for the Kimberley region of Western Australia. As such, they are not a Prescribed or Registered Native Title Body Corporate but exist to assist native title claimants and holders.</p> <p>KLC's functions may be relevant to the proposed activity in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation.</p>	Yes
Self identified First Nations groups			
Ngarluma Yindjibarndi Foundation Ltd (NYFL)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 11A(1)(d).</p> <p>NYFL is the entity representing the interests of the Ngarluma and Yindjibarndi people under the Northwest Shelf Agreement 1998 with Woodside and joint venture partners. The determination of the competing Native Title claims resulted in no native title being found over the lands subject to the Northwest Shelf Agreement 1998 or below the low water mark. It is noted that the appropriate representative bodies for the Ngarluma and</p>	Yes

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		Yindjibarndi peoples outside of the Northwest Shelf Agreement 1998 are the Ngarluma Aboriginal Corporation and the Yindjibarndi Aboriginal Corporation.	
Local government and community representative groups or organisations			
Shire of Exmouth	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Exmouth, Learmonth and North West Cape.	Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d). The Shire of Exmouth's area of responsibility overlaps the EMBA.	Yes
Shire of Ashburton	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Onslow, Pannawonica, Paraburdoo and Tom Price.	Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d). The Shire of Ashburton's area of responsibility overlaps the EMBA.	Yes
City of Karratha	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Baynton, Baynton West, Bulgarra, Cossack, Dampier, Gap Ridge, Karratha, Karratha Industrial Estate, Jingarri, Madigan, Millars Well, Nickol, Pegs Creek, Point Samson, Roebourne, Whim Creek and Wickham.	Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d). The City of Karratha's area of responsibility overlaps the EMBA.	Yes
Exmouth Community Liaison Group (CLG)	The Exmouth CLG represents the interests of a range of	Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d).	Yes

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	<p>local government, industry and community organisations in relation to oil and gas matters in the Exmouth region.</p>	<p>Base Marine, Bgahwan Marine, Cape Conservation Group Inc., DBCA, Department of Defence, Department of Transport, Exmouth Bus Charter, Exmouth Chamber of Commerce and Industry, Exmouth District High School, Exmouth Freight and Logistics, Exmouth Game Fishing Club, Exmouth Tackle and Camping Supplies, Exmouth Visitors Centre, Exmouth Volunteer Marine Rescue, Fat Marine, Gascoyne Development Commission, Gun Marine Services, Ningaloo Lodge, Offshore Unlimited, Shire of Exmouth, BHP Petroleum, Santos, Community Member.</p> <p>The Exmouth CLG's area of responsibility under its terms of reference overlaps the EMBA. Under regulation 11A1(e), Woodside, at its discretion, chose to assess the Exmouth CLG as a relevant person.</p>	
<p>Karratha Community Liaison Group (CLG)</p>	<p>The KLG is the recognised community group that represents the interests of a range of local government, industry and community organisations in relation to oil and gas matters in the Pilbara region.</p>	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d).</p> <p>The KLG's area of responsibility under its terms of reference does not overlap the EMBA. WA Police, Karratha Health Care, Development WA, Ngarluma Yindjibarndi Foundation Ltd (NYFL)*, Department of Education, Pilbara Ports Authority, Regional Development Australia, Pilbara Development Commission, Dampier Community Association, City of Karratha, Karratha & Districts Chamber of Commerce and Industry, Horizon Power, Murujuga Aboriginal Corporation (MAC)*, Department of Local Government, Sport and Cultural Industries</p> <p><i>*NFYL and MAC were consulted directly as described above.</i></p> <p>Under regulation 11A1(e), Woodside, at its discretion, chose to assess the KLG as a relevant person.</p>	<p>Yes</p>
<p>Onslow Chamber of Commerce and Industry (CCI)</p>	<p>Independent not-for-profit organisation responsible for promoting the interests of its members in the business community in the town of Onslow and surrounding areas.</p>	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 11A(1)(d).</p> <p>The Onslow Chamber of Commerce and Industry's interests have the potential to be impacted by the proposed activities.</p>	<p>Yes</p>

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Other non-government groups or organisations			
Australian Conservation Foundation (ACF)	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 11A(1)(d).</p> <p>Woodside has assessed that ACF's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 6.2 of the EP).</p> <p>Woodside chose to contact ACF at its discretion in line with Section 6.3.7 of the EP.</p>	No
Conservation Council of Western Australia (CCWA)	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 11A(1)(d).</p> <p>Woodside has assessed that CCWA's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 6.2 of the EP).</p> <p>Woodside chose to contact CCWA at its discretion in line with Section 6.3.7 of the EP.</p>	No
Greenpeace Australia Pacific (GAP)	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 11A(1)(d).</p> <p>Woodside has assessed that GAP's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 6.2 of the EP).</p> <p>Woodside chose to contact GAP at its discretion in line with Section 6.3.7 of the EP.</p>	No
Friends of the Earth Australia	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 11A(1)(d).</p> <p>Woodside has assessed that Friends of the Earth Australia's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out Section 6.2 of the EP).</p>	No

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		Woodside chose to contact Friends of the Earth Australia at its discretion in line with Section 6.3.7 of the EP.	
Maritime Union of Australia (MUA)	Non-government organisation	Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 11A(1)(d). Woodside has assessed that MUA's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 6.2 of the EP.). Woodside chose to contact MUA at its discretion in line with Section 6.3.7 of the EP.	No
Telstra	Non-government organisation	Woodside has applied its methodology for 'Other non-government groups or organisations' under Regulation 11(A)(1)(d) to determine Telstra's relevance for the proposed activity. There are known communication cables that intersect within the Operational Areas.	Yes
Vocus	Non-government organisation	Woodside has applied its methodology for 'Other non-government groups or organisations' under Regulation 11(A)(1)(d) to determine Vocus' relevance for the proposed activity. There are known communication cables that intersect within the Operational Areas.	Yes
Research institutes and local conservation groups or organisations			
Cape Conservation Group (CCG)	Local conservation group focused on protecting the terrestrial and marine environment of the North West Cape	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). CCG's conservation activities have the potential to intersect with the EMBA as the EMBA overlaps North West Cape.	Yes
Protect Ningaloo	Local conservation group focused on protecting the Exmouth Gulf and Ningaloo Reef and Cape Range	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). Protect Ningaloo's conservation activities have the potential to intersect with the EMBA as the EMBA overlaps North West Cape and Ningaloo Reef.	Yes

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University of Western Australia (UWA)	Research institute	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). There is no known research being undertaken by the UWA that intersects within the EMBA. Woodside chose to contact UWA at its discretion in line with Section 6.3.7 of the EP.	No
Western Australian Marine Science Institution (WAMSI)	Research institute	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). There is known research being undertaken by WAMSI that intersects within the EMBA. Woodside chose to contact WAMSI at its discretion in line with Section 6.3.7 of the EP.	No
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Research institute	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). There is no known research being undertaken by CSIRO that intersects within the EMBA. Woodside chose to contact CSIRO at its discretion in line with Section 6.3.7 of the EP.	No
Australian Institute of Marine Science (AIMS)	Research institute	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 11A(1)(d). There is no known research being undertaken by AIMS that intersects within the EMBA. Woodside chose to contact AIMS at its discretion in line with Section 6.3.7 of the EP.	No

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CONSULTATION ACTIVITIES

North West Shelf and Julimar Exploration Wellhead Decommissioning EP Consultation Activities

Woodside has been conducting extensive consultation with relevant persons and other parties for this EP since May 2022 when consultation commenced with interested and affected stakeholders as part of a planned, integrated and consistent approach to stakeholder engagement for Woodside's proposed opportunities. A broad consultation process has been undertaken with relevant persons for the North West Shelf and Julimar Exploration Wellhead Decommissioning EP. Consultation aims to be inclusive, transparent, voluntary, respectful and two-way. Consultation was undertaken by email, letter, phone call and/or meeting.

- Woodside advertised the planned activities proposed for this EP in national, state and relevant local newspapers including The Australian, The West Australian, Pilbara News, Midwest Times, North West Telegraph (19 July 2023) and the National Indigenous Times and Koori Mail (25 and 26 July 2023) (see **Record of Consultation, reference 3.48, 3.49 and 3.50**). Regional newspapers do not require subscription and are available (and in some cases delivered) directly to households. All communities within or adjacent to the EMBA had access to this information via this media. No direct comments or feedback were received from the advertisements.

Newspaper	Coverage	Publication dates
The Australian	National	19 July 2023
The West Australian	Regional (WA)	19 July 2023
Pilbara News	Local (WA)	19 July 2023
The Geraldton Guardian	Local (WA)	19 July 2023
Midwest Times	Local (WA)	19 July 2023
North West Telegraph	Local (WA)	19 July 2023
Koori Mail	Indigenous	26 July 2023
National Indigenous Times	Indigenous	25 July 2023

- A Consultation Information Sheet was provided to relevant persons and persons Woodside chose to contact (see **Section 6.3.4** in the EP), which included details such as an activity overview, maps, a summary of key risks and/or impacts and management measures (**Record of Consultation, reference 1.23**).
- An activity update Consultation Information Sheet was provided to relevant persons and persons Woodside chose to contact (see **Section 6.3.4** in the EP), which included an update regarding planned activities, information regarding the EMBA for this EP and additional information relating to mitigation and managements measures for this EP (**Record of Consultation, reference 3.46**).
- Since the commencement of the initial consultation period (May 2022), the stakeholder Consultation Information Sheet has been available on Woodside's website and the activity

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update Consultation Information Sheet since July 2023 (**Record of Consultation, reference 3.46**). The Woodside Consultation Information Sheets include a toll-free 1800 phone number and Woodside’s feedback email address (feedback@woodside.com.au).

- Additional targeted information was provided to relevant marine users including AHO and AMSA – Marine Safety (**Record of Consultation, reference 1.26 and 3.52**). This information included maps and additional information relevant to the specific category of persons. The relevant persons had a 30-day period in which to provide feedback.
- Where appropriate, Woodside conducted phone calls and meetings with relevant persons.
- Where appropriate, targeted follow-up emails were sent to relevant persons who had not provided a response prior to the close of the target feedback period.
- Woodside considered relevant person responses and assessed the merits and relevance of objections and claims about the potential adverse impact of the proposed activity set out in the EP, in accordance with the intended outcome of consultation (see **Section 6.2** in the EP).
- Consultation activities undertaken with relevant persons are summarised at **Appendix F, Table 2**.
- Engagement undertaken with persons or organisations Woodside assessed as not relevant but chose to contact (see **Section 6.3.4** in the EP) or self-identified and Woodside assessed as not relevant are summarised at **Appendix F, Table 3**.
- From May to September 2023, Woodside commenced a geotargeted sponsored social media campaign (**Record of Consultation, reference 4.50**) to various local government authorities within or coastally adjacent to the EMBA for the proposed activities. The campaign brought the proposed activity to the attention of persons who may be interested and advised persons or organisations on how they can find out about Woodside’s proposed activities by visiting Woodside’s website.

Platform	Geotargeted Reach	Post Dates	Impact
Facebook	Regional: Users 18+ located within 80kms of Carnarvon, Denham, Exmouth, Onslow, Port Hedland, and Karratha	22 August 2023 – 11 September 2023	Reach: 240,329 Frequency: 3.02 Impressions: 726,563 Clicks: 1941 Click Through Rate%: 0.27%
Instagram	Regional: Users 18+ located within 80kms of Carnarvon, Denham, Exmouth, Onslow, Port Hedland, and Karratha	22 August 2023 – 11 September 2023	Reach: 114,372 Frequency: 2.53 Impressions: 288,810 Clicks: 257 Click Through Rate %: 0.09%

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- From June 2023, Woodside held a number of community information sessions where this EP's Consultation Information Sheets were available and discussed. See tables in **Record of Consultation, reference 5.1, 5.2, 5.3 and 5.4.**

Date (2023)	Location	Event (if applicable)
17 June	Exmouth	PHI Helicopters Community Open Day
22 June	Roebourne	
28 and 29 June	Karratha	
19 July	Roebourne	
5 and 6 August	Karratha	FeNaCING
18 August	Onslow	Passion of the Pilbara Festival
18, 19 and 20 September	Karratha, Port Hedland and Roebourne	Community Consultation Roadshow
23 October	Exmouth	Community Consultation Roadshow

Traditional Custodian Specific Consultation

In addition to the approaches above including community information sessions, additional activities were undertaken with relevant Traditional Custodians, which were specifically designed to provide for effective engagement with Traditional Custodians and so that information was provided in a form that was readily accessible and appropriate (**Section 6** in the EP). Consultation undertaken specifically with Traditional Custodians for this EP includes:

- Direct engagement with nominated representative bodies via the contact listed on the ORIC website, requesting advice on how they would like to be engaged and asking whether other members and/or individuals should be consulted. This has resulted in:
 - Meetings with directors, elders and any nominated representatives, on country or in Perth
 - Requests and offers of resourcing to enable and support consultation
 - Exchange of written feedback and correspondence
 - Woodside Summary Consultation Information Sheet (**Record of Consultation, reference 3.47**), developed and reviewed by Indigenous representatives in collaboration with technical experts to ensure content is appropriate to the intended recipients, was provided to relevant Traditional Custodian groups and phone calls to provide context to the consultation made.
- Ongoing efforts were made to engage and develop relationships with these bodies via a variety of means such as email, phone calls, alternative contacts, texts, social media and in some cases physical visits.
- Consultation meetings with attendees decided by Traditional Custodian groups, supported by senior Woodside representatives, subject matter experts, First Nations Relations advisers with skills and experience in community engagement. Meetings are developed through a two-way consultation process to ensure effective information sharing via:
 - Mutually agreed agenda avoiding time pressure
 - Encouraging Traditional Custodian attendees to control the pace of the meeting and pause at any time to ask questions, seek clarification or provide feedback
 - Visual aids such as posters, presentations, simplified technical videos and real-world pictures and footage
 - Emphasis on potential planned and unplanned risks and impacts of the activity
 - Ample opportunity for questions and feedback
 - Discussion about ongoing relationship development and opportunities

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- Distribution of hard-copy Consultation Information Sheets (**Record of Consultation, reference 3.46**) and Summary Consultation Information Sheets (**Record of Consultation, reference 3.47**)
- Meeting all costs such as sitting fees, travel, legal support and executive support and other support required.
- Advertising in Indigenous publications such as the National Indigenous Times and Koori Mail (25 and 26 July 2023) (see **Record of Consultation, reference 3.49** and **3.50**).
- Woodside has a geotargeted sponsored social media campaign (**Record of Consultation, reference 4.50** and **4.51**) to various communities that are coastally adjacent to the EMBA for the proposed activities.
 - The wide-reaching campaign brought the proposed activity to the attention of persons who may be interested and advised persons or organisations how they can find out about Woodside's proposed activities by visiting Woodside's website, which details the intent of consultation with relevant persons under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023. The campaign reached around 106,500 people and was viewed close to a million times to date across various regions as shown in **Record of Consultation, reference 4.50**.
 - These social media posts were developed with input from Indigenous representatives. Social media is a highly effective means to engage Indigenous audiences as outlined in Indigenous Digital Life (Professor Carlson, 2021). Advertisements used language and information appropriate to Indigenous audiences. Feedback from community engagements indicates a high level of penetration for this technique.

Woodside has employed a diverse range of techniques to allow relevant persons to become aware of the proposed activity and how it may affect their functions, activities or interests, and to understand their ability to provide feedback. The combination of PBC engagement meetings, traditional print media, social media and face-to face community interaction was designed with input from Indigenous representatives and adapted to the audience, so that it provides a wide-ranging opportunity to consult.

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Uncontrolled when printed. Refer to electronic version for most up to date information.

Table 2: Consultation Report with Relevant Persons or Organisations

Commonwealth and WA State Government Departments or Agencies – Marine		
Australian Border Force (ABF)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with ABF for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to ABF on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the ABF with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed ABF advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet. • On 24 July 2023, Woodside emailed ABF an update on the proposed activity (Record of Consultation, reference 3.1) and provided an updated Consultation Information Sheet. • On 7 August 2023, Woodside emailed ABF following up on the proposed activity (Record of Consultation, reference 4.4), and provided the updated Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	Woodside has addressed maritime security-related issues in Section 7 of this EP based on previous offshore activities. No additional measures or controls are required.

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Australian Fisheries Management Authority (AFMA)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with AFMA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to AFMA on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the AFMA with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed AFMA advising of the proposed activity (Record of Consultation, reference 1.3) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet. • On 24 July 2023, Woodside emailed AFMA, advising of the proposed activity (Record of Consultation, reference 3.10) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed AFMA, following up on the proposed activity (Record of Consultation, reference 4.27), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD and WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>

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Australian Hydrographic Office (AHO)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with AHO for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to the AHO on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the AHO with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed AHO advising of the proposed activity (Record of Consultation, reference 1.4) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and shipping lanes map (Record of Consultation, reference 1.26). • On 10 May 2022, AHO responded acknowledging receipt of Woodside’s email. • On 24 July 2023, Woodside emailed AHO advising of the proposed activity (Record of Consultation, reference 3.8) and provided a Consultation Information Sheet and a shipping lanes map (Record of Consultation. Reference 3.52), and GIS shape files. • On 7 August 2023, Woodside emailed AHO following up on the proposed activity (Record of Consultation, reference 4.23), and provided a Consultation Information Sheet. • (1) On 8 August 2023, AHO emailed to confirm receipt of Woodside’s email and that the data supplied would be registered, assessed, prioritised and validated in preparation for updating the AHO’s Navigational Charting products. • On 8 September 2023, Woodside contacted AHO as recommended by Australian Communications Media Authority (ACMA). • (2) On 14 September 2023, AHO responded to advise it did not have a separate dataset of submarine cables and that it supplied the latest ENC in S.57 and paper charts in GeoTIFF format to Woodside to assist planning. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

<p>AHO:</p> <ul style="list-style-type: none"> • (1) Confirmed receipt of Woodside’s email and noted the data would be registered, assessed, prioritised and validated. • (2) Provided direction regarding submarine cables and information it already provided to Woodside in this regard. <p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Noted the AHO’s acknowledgement of its email. • (2) Contacted AHO as recommended by ACMA. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>(1) Not required. (2) Not required.</p> <p>Woodside will notify the AHO no less than four working weeks before operations commence, as referenced as PS 1.1 in this EP.</p> <p>No additional measures or controls are required.</p>
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Australian Maritime Safety Authority (AMSA) – Marine Safety

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with AMSA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to AMSA on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to AMSA over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed AMSA (Marine Safety) advising of the proposed activity (Record of Consultation, reference 1.4) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and shipping lanes map (Record of Consultation, reference 1.26).
- On 13 May 2022, AMSA emailed Woodside requesting:
 - **(1)** The AHO be contacted no less than four working weeks before operations commence for the promulgation of related notices to mariners,
 - **(1)** AMSA’s Joint Rescue Coordination Centre (JRCC) be notified at least 24–48 hours before operations commence,
 - **(1)** Provide updates to the AHO and JRCC should there be changes to the activity,
 - **(2)** Vessels exhibit appropriate lights and shapes to reflect the nature of operations and comply with the International Rules of Preventing Collisions at Sea, AMSA provided advice on obtaining vessel traffic plots, including digital datasets and maps.
- On 13 May 2022, Woodside responded to AMSA confirming it will contact/notify the AHO no less than 4 weeks before operations commence.
 - AMSA’s JRCC at least 24-48 hours before operations commence,

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- Provide updates to both the AHO and AMSA on any changes,
- Confirmed vessels will exhibit appropriate lights and shapes to reflect the nature of operations and the obligation to comply with the International Rules for Preventing Collisions at Sea.
- On 24 July 2023, Woodside emailed AMSA, advising of the proposed activity (Record of Consultation, reference 3.8) and provided a Consultation Information Sheet, shipping lanes map (Record of Consultation, reference 3.52) and GIS shape files.
- **(2)** On 25 July 2023, AMSA emailed Woodside with concerns where activities occur within the charted shipping fairways. AMSA stated it would like to understand the specific risk mitigation measures for the activities as AMSA considers these areas to be higher risk due to the higher density of shipping traffic. AMSA asked whether a Woodside team member would be available for an online meeting to explain the specifics of the activities.
- On 3 August 2023, Woodside emailed AMSA in response to AMSA's concerns where activities occurred within the charted shipping fairways and provided information as follows:
 - Only three of the 36 Operational Areas for the wells overlap a shipping fairway (an image was provided),
 - Activities would be of short duration: planned approx. 3 days per well for IMR activities and 3 days per well for wellhead removal (potential to be up to 10 days),
 - Up to two vessels – one offshore support vessel conducting activities and possibly one general support vessel – would be present during the activities,
 - Controls to manage any impacts to other marine users, including shipping vessels included:
 - Vessels would adhere to regulatory requirements for navigational safety,
 - A temporary 500 m petroleum safety zone around the Offshore Support Vessel (OSV) which is communicated to marine users would be established,
 - Relevant government departments, fishing industry representative bodies and relevant licence holders would be notified of activities prior to commencement and on completion of activities,
 - The AHO would be notified prior to commencement of the activity to enable them to update maritime charts ensuring marine users are aware of the activity,
 - Relevant persons would be consulted so they are informed of the proposed activities.

Woodside offered a meeting for further clarification if AMSA still required it.

- **(3)** On 15 August 2023, AMSA thanked Woodside for the information provided and advised a meeting was no longer necessary. AMSA again emphasised the additional risk of collision when conducting work within the charted shipping fairways and advised Woodside to evaluate and implement adequate anti-collision measures.

In addition to the measures Woodside listed, AMSA recommended:

- Woodside notify AMSA's Joint Rescue Coordination Centre (JRCC) through rccaus@amsa.gov.au (Phone: 1800 641 792 or +61 2 6230 6811) for promulgation of radio-navigation warnings 24-48 hours before operations commenced,
- AMSA noted that Woodside mentioned the possibility of an additional support vessel on site. AMSA recommended that the benefits of this were assessed and incorporated into Woodside's control measures if necessary and that an additional vessel may be able to reduce risk if it can monitor traffic and take early action to alert a vessel approaching the area of operations,
- Vessels should exhibit appropriate lights and shapes to reflect the nature of operations – AMSA reminded vessels of their obligation to comply with the International Rules for Preventing Collisions at Sea (COLREGs), in particular, the use of appropriate lights and shapes to reflect the nature of operations (e.g. restricted in the ability to manoeuvre). Vessels should also ensure their navigation status is set correctly in the ship's AIS unit.

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<ul style="list-style-type: none"> • On 22 August 2022, Woodside responded to AMSA and advised: <ul style="list-style-type: none"> – AMSA’s JRCC would be notified 24-48 hours before operations commenced with the required details, – Woodside would assess the benefits of having an additional support vessel on site while conducting activities within a shipping fairway and would adopt this as a control in the EP if determined to be necessary (i.e. impacts and risks to other marine users assessed as ALARP), – Vessels contracted by Woodside would operate AIS and comply with all regulatory requirements for navigational safety, including relevant Marine Orders (e.g. 30 and 21), to prevent any adverse interaction with other marine users during the Petroleum Activities Program. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>AMSA requested Woodside:</p> <ul style="list-style-type: none"> • (1) Contact AHO no less than four working weeks before operations commence for the promulgation of related notices to mariners, • (1) Notify AMSA’s Joint Rescue Coordination Centre (JRCC) at least 24–48 hours before operations commence, • (1) Provide updates to AHO and JRCC should there be changes to the activity, • (2) Vessels are to exhibit appropriate lights and shapes to reflect the nature of operations and to comply with the International Rules of Preventing Collisions at Sea, <p>AMSA provided advice on obtaining vessel traffic plots, including digital datasets and maps.</p> <p>(1) (3) AMSA expressed concerns regarding activities within charted shipping fairways and wanted to understand the specific risk mitigation measures for the activities.</p> <p>(2) (3) AMSA re-iterated additional risk of collision when conducting work within</p>	<p>Woodside:</p> <p>(1,2) Confirmed it would comply with AMSA’s requests.</p> <p>(3) Advised AMSA:</p> <ul style="list-style-type: none"> • Only three of the 36 Operational Areas for the wells overlap a shipping fairway, • Activities would be of short duration: planned approx. 3 days per well for IMR activities and 3 days per well for wellhead removal (potential to be up to 10 days), • Up to two vessels would be present during the activities, • Provided details of controls to manage any impacts to other marine users, including shipping vessels. <p>(1, 2) Further advised AMSA it would:</p> <ul style="list-style-type: none"> • Notify AMSA’s JRCC 24-48 hours before operations commenced with the required details, • Assess the benefits of an additional support vessel on site and would adopt this as a control in the EP if determined to be necessary, • Ensure vessels would operate AIS and comply with navigational safety requirements. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>(1) Woodside will notify the AHO no less than four working weeks before operations commence, as referenced as PS 1.1 in this EP.</p> <p>Woodside will notify AMSA’s JRCC at least 24–48 hours before operations commence for each survey, as referenced as PS 1.3 in this EP.</p> <p>(2 and 3) Section 7 of the EP contains several controls that address AMSA’s feedback on lighting and compliance with the international rule for preventing collisions at sea, including relevant Marine Orders. Woodside considered the adoption of a control to have a support vessel during activities within shipping fairways in Section 7.1 of the EP.</p> <p>No additional measures or controls are required.</p>

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<p>the charted shipping fairways and advised Woodside to evaluate and implement adequate anti-collision measures.</p>		
<p>Australian Maritime Safety Authority (AMSA) – Marine Pollution</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with AMSA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to AMSA on 29 July 2022 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the AMSA with the opportunity to provide feedback over a 15 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 29 July 2022, Woodside emailed AMSA – Marine Pollution (Record of Consultation, reference 1.5) and provided a copy of the Oil Pollution First Strike (OPFS) Plan (Appendix H). (Note: the Consultation Information Sheet was provided to AMSA – Marine Safety as per above.) • On 24 July 2023, Woodside emailed AMSA – Marine Pollution advising of the proposed activity (Record of Consultation, reference 3.9) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed AMSA – Marine Pollution, following up on the proposed activity (Record of Consultation, reference 4.26), and provided a Consultation Information Sheet. • On 5 September 2023, Woodside emailed AMSA – Marine Pollution to advise that the EP submission for this activity had been delayed and was rescheduled for submission in October 2023. <ul style="list-style-type: none"> – Woodside advised there had been no change to the planned activities or the assessed risk, however, if AMSA wanted to re-review the OPFS Plan (sent to AMSA on 29 July 2022), Woodside could send a copy. Woodside further advised, as per its usual process, a final version of the OPFS Plan would be provided to AMSA following regulatory acceptance by NOPSEMA. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>

<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>Woodside has addressed oil pollution planning and response at Appendix D. No additional measures or controls are required.</p>
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Commonwealth and WA State Government Departments or Agencies – Environment

Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries (formerly DAWE)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DAFF for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Consultation information provided to DAFF on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided DAFF with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed DAFF advising of the proposed activity (Record of Consultation, reference 3.18) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed DAFF following up on the proposed activity (Record of Consultation, reference 4.20), and provided a Consultation Information Sheet.

<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF-Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at</p>

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		<p>the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
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Department of Defence (DoD)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DoD for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DoD on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has addressed and responded to DoD over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DoD advising of the proposed activity (Record of Consultation, reference 1.7) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and defence zone map (Record of Consultation, reference 1.27).
- On 23 June 2022, DoD responded advising that:
 - (1) Part of the proposed operational area is located within the North West Exercise Area (NWX) and restricted airspace.
 - (2) Unexploded ordnance (UXO) may be present on and in the sea floor within the NWXA. Woodside must, therefore, inform itself as to the risks associated with conducting activities in the area (for example, the detonation of UXO).
 - (3) All activities in the area are conducted at its own risk. The Commonwealth of Australia takes no responsibility for reporting the location and type of UXO that may be in the areas, identifying or removing any UXO from these areas and any loss or damage suffered or incurred arising out of, or directly related to, UXO in the area.
 - DoD requested:
 - (4) A minimum of five weeks notification prior to the commencement of activities.
 - (5) Woodside to liaise with Airservices Australia regarding any notification requirements in restricted airspace.
 - (6) Notify the AHO of the activities three weeks prior to commencement.
- On 28 June 2022, Woodside responded and thanked DoD for its feedback. Woodside:

	<ul style="list-style-type: none"> - Noted DoD’s advice regarding the Operational Areas and the presence of the North West Exercise Area (NWXA) and restricted airspace, - Noted DoD’s advice with respect to the location, identification, removal, or damage to equipment from unexploded ordinances (UXOs), - Confirmed it would notify DoD at least five weeks prior to the commencement of activities, - Noted the requirement and contact details provided by DoD to engage with Airservices Australia if the restricted airspace is activated, - Advised that Woodside would confirm restricted air space status with DoD as part of its commencement of activity notification, - Advised that AHO had already been engaged for this activity and was included in Woodside’s activity notification protocols. At its request, AHO would be notified four weeks prior to the start of activities. <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed DoD advising of the proposed activity (Record of Consultation, reference 3.19) and provided a Consultation Information Sheet and defence zone map (Record of Consultation, reference 3.51). • On 7 August 2023, Woodside emailed DoD following up on the proposed activity (Record of Consultation, reference 4.22), and provided a Consultation Information Sheet and a defence zone map (Record of Consultation, reference 3.51). • On 13 September 2023, DoD apologised for its late reply and requested whether Woodside still required a response for ‘the enquiry’ and if so, the date it was needed. • On 13 September 2023, Woodside responded and requested DoD forward any feedback specific to the proposed activities as soon as it was able despite the previously advised date of 24 August 2023. Woodside also resent the initial consultation information email, Consultation Information Sheet and defence zone map. • On 5 October 2023, DoD responded and stated: <ul style="list-style-type: none"> - (1) The activity areas were located within the North West Exercise area, restricted airspace and practice areas - (2) Unexploded ordnance (UXO) may be present on and in the sea floor and Woodside must inform itself as to the risks associated with conducting activities in the area (for example, the detonation of UXO) - (3) Woodside was also advised that all activities in the area were conducted at its own risk and that the DoD took no responsibility for reporting, removing and any loss or damage related to UXO in the area. - (6) Woodside should ensure continued liaison with AHS for Notices to Mariners (NOTMAR), and the AHS should be notified three weeks prior to commencement of activities. • On 3 November 2023, Woodside emailed DoD noting DoD’s advice and confirmed Woodside had already engaged the AHO (AHS) for these activities and was included in Woodside’s activity notification protocols. As per the AHO’s request, it would be notified four weeks prior to the start of activities. 	
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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>DoD advised:</p> <ul style="list-style-type: none"> • (1) Part of the proposed operational area is located within the NWXA and restricted airspace, • (2) UXO may be present on and in the sea floor, therefore Woodside must inform itself regarding risks associated with activities in the area e.g., detonation of UXO, • (3) All activities in the area are conducted at Woodside's own risk and there is no Commonwealth responsibility for reporting regarding UXO. <p>DoD requested:</p> <ul style="list-style-type: none"> • (4) Woodside provides a minimum of five weeks' notice to DoD prior to activity commencement, • (5) Woodside liaises with Airservices Australia regarding notification requirements in restricted airspace, • (6) Woodside notifies AHO three weeks prior to commencement of activities. <p>Following receipt of Woodside's updated activity information, DoD reiterated its previous advice but added:</p> <ul style="list-style-type: none"> • (6) Woodside should ensure continued liaison with AHS for Notices to Mariners (NOTMAR). <p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside has addressed DoD's feedback, including:</p> <ul style="list-style-type: none"> • (1, 2, 3) Noted DoD's advice regarding the Operational Areas, NWXA and restricted airspace, and UXOs, • (4) Confirmed it would notify DoD at least five weeks prior to the commencement of activities, • (5) Noted requirements regarding Airservices Australia, • (4) Advised it would confirm restricted air space status with DoD as part of its commencement of activity notification, • (6) Advised AHO had already been engaged for this activity and was included in Woodside's activity notification protocols. At its request, AHO would be notified four weeks prior to the start of activities. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>(1, 2, 3) Woodside has assessed the defence areas overlapping the Operational Areas in Section 5.6.7 of this EP.</p> <p>(4, 5, 6) Woodside will provide notifications to DoD, AHO and Air Services Australia (if required), as referenced as PS 1.6 and PS 1.1, and described in Section 8.9 of this EP.</p> <p>No additional measures or controls are required.</p>
<p>Department of Primary Industries and Regional Development (DPIRD)</p>		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DPIRD for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DPIRD on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has addressed and responded to DPIRD over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DPIRD advising of the proposed activity (Record of Consultation, reference 1.9) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and a relevant fisheries map (Record of Consultation, reference 1.25).
- On 7 June 2022, Woodside emailed DPIRD following up on consultation (Record of Consultation, reference 2.3) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map.
- On 24 July 2023, Woodside emailed DPIRD advising of the proposed activity (Record of Consultation, reference 3.4) and provided a Consultation Information Sheet.
- On 25 July 2023, a DPIRD representative emailed Woodside in error instead of a DPIRD colleague.
- On 7 August 2023, Woodside emailed DPIRD following up on the proposed activity (Record of Consultation, reference 4.14), and provided a Consultation Information Sheet.
- On 9 August 2023, Woodside emailed DPIRD to check whether the email was meant for Woodside or DPIRD.
- On 10 August 2023, DPIRD emailed Woodside to advise the email dated 25 July 2023 was meant for DPIRD – the representative was checking to see whether DPIRD had any feedback regarding this EP.
- On 10 August 2023, DPIRD emailed to advise it had no objection or comment on the proposed activities at this stage.
- On 10 August 2023, DPIRD left a phone message requesting a call back to discuss the activity.
- **(1)** On 11 August 2023, Woodside called DPIRD to discuss the activity. DPRID advised it had no concerns with the removal of the wellheads but noted if some wellhead infrastructure remained in situ this would provide good habitat for marine life. DPIRD advised it would respond in writing noting this.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>(1) DPIRD advised it had no concerns with the removal of the wellheads but noted if some wellhead infrastructure remained in situ this would provide habitat for marine life. While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside acknowledged that DPIRD had no concerns with the removal of the wellhead and noted its advice that if some infrastructure remained in situ it would provide habitat for marine life. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required. Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP. Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP. No additional controls or measures are required.</p>
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Department of Transport (DoT)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DoT for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DoT on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DoT over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DoT advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- **(1)** On 13 May 2022, DoT responded requesting that if there were any changes that might result in an increased risk of a spill impacting State waters from the proposed activities, DoT be consulted.
- On 18 May 2022, Woodside responded confirming that if was a risk of a spill impacting State waters, DoT would be consulted.
- On 29 July 2022, Woodside emailed DoT (Record of Consultation, reference 1.10) and provided a copy of the Oil Pollution First Strike (OPFS) Plan (Appendix H).
- **(2)** On 5 September 2022, DoT thanked Woodside for providing the OPFS Plan and advised it did not have any queries but requested Woodside provided DoT with a final accepted version when available.

<ul style="list-style-type: none"> On 24 July 2023, Woodside emailed DoT advising of the proposed activity (Record of Consultation, reference 3.1) and provided a Consultation Information Sheet. (1) On 3 August 2023, DoT emailed Woodside to advise that if there was a risk of a spill impacting State waters from any of the proposed activities, Woodside should ensure DoT was consulted. On 3 August 2023, Woodside emailed DoT confirming Woodside would consult DoT if there was an oil spill risk. On 8 August 2023, Woodside had a phone conversation with DoT regarding the OPFS Plan. On 10 August 2023, Woodside followed up the phone conversation with DOT with an email confirming: <ul style="list-style-type: none"> (3) On 29 July 2022, DoT was provided with a copy of Woodside’s NWS and Julimar Exploration Wellhead Decommissioning – OPFS Plan for review. DoT responded on 5 September 2022, stating it did not have any queries regarding the Plan. The EP submission was subsequently delayed and was now due for resubmission in October 2023. As there were no changes in the assessed risk, DoT had no requirement to reassess the OPFS Plan. If DoT’s position were to change, Woodside would resend the OPFS Plan to DoT for further review. On 21 August 2023, DoT emailed Woodside in relation to the OPFS Plan to advise that if there was no change in risk to State waters, DoT did not need to see the OPFS Plan at this stage. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>DoT:</p> <ul style="list-style-type: none"> (1) Requested that Woodside consult with DoT if there was an increased risk of a spill impacting State waters from the proposed activities, (2) Advised it did not have any queries regarding the OPFS Plan, (3) Emailed Woodside in relation to the OPFS Plan to advise that if there was no change in risk to State waters, DoT did not need to see the OPFS Plan. 	<p>Woodside:</p> <ul style="list-style-type: none"> (1) Confirmed it would advise DoT in the event of increased spill risks, (2) Provided DoT with the OPFS Plan, (3) Advised the activities were delayed but as there were no changes to the assessed risk, there was no requirement for DoT to reassess the OPFS Plan, and that if DoT’s position were to change, Woodside would resend the Plan. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7) in this EP.</p>	<p>(1, 2, 3) Woodside has addressed oil pollution planning and response at Appendix D.</p> <p>(2) Woodside will provide DoT with a copy of the accepted Oil Pollution First Strike Plan.</p> <p>(1) Woodside will consult DoT if there is a spill impacting State water from the proposed activity.</p> <p>No additional measures or controls are required.</p>
<p>Department of Planning, Lands and Heritage (DPLH)</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DPLH for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. 		
<p>This document is protected by copyright. No part of this document may be reproduced, adapted, transmitted, or stored in any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved.</p> <p>Controlled Ref No: SA0006AH0000008 Revision: 0 Page 49 of 167</p> <p style="text-align: center;">Uncontrolled when printed. Refer to electronic version for most up to date information.</p>		

- Consultation information provided to ABF on 24 July 2023 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has addressed and responded to DPLH over a 19 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed DPLH advising of the proposed activity (Record of Consultation, reference 3.22) and provided a Consultation Information Sheet and a list of State shipwrecks.
- On 7 August 2023, Woodside emailed DPLH following up on the proposed activity (Record of Consultation, reference 4.15), and provided a Consultation Information Sheet and a list of State shipwrecks.
- **(1)** On 10 August 2023, DPLH emailed to advise it had no comment on the proposed activity but advised that the Western Australian Museum (WAM) is the delegated authority for the management of Commonwealth historic shipwrecks and relics in Western Australia and should be contacted for advice regarding any maritime archaeological impacts.
- On 10 August 2023, Woodside emailed a response to DPLH to advise it noted that WAM was the delegated authority for the management of Commonwealth historic shipwrecks and relics in Western Australia and Woodside would contact WAM for advice regarding any maritime archaeological impacts.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) DPLH advised for advice regarding any maritime archaeological impacts, Woodside should contact WAM as the delegated authority for the management of Commonwealth historic shipwrecks and relics in Western Australia.</p> <p>While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside confirmed it would contact WAM for advice regarding maritime archaeological impacts.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>(1) Not required.</p> <p>No additional measures or controls are required.</p>

Western Australian Museum (WAM)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with WAM for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to WAM on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the WAM with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed WAM advising of the proposed activity (Record of Consultation, reference 3.33) and provided a Consultation Information Sheet and a list of State shipwrecks.
- On 7 August 2023, Woodside emailed WAM following up on the proposed activity (Record of Consultation, reference 4.13) and provided a Consultation Information Sheet and a list of State shipwrecks.
- On 21 August 2023, WAM emailed Woodside feedback on the proposed activity. WAM advised:
 - **(1)** Under the Underwater Cultural Heritage Act 2018 (Cwth), proponents were in the first place required to contact DCCEEW who would engage with WAM if necessary,
 - **(2)** Woodside should refer to the Commonwealth Government’s Underwater Cultural Heritage Guidance for Offshore Developments document for UCH assessments and the Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage,
 - **(3)** Woodside should engage a suitably qualified and experienced maritime archaeologist to undertake a UCH Desktop Assessment to identify Aboriginal and non-Aboriginal UCH within the project area,
 - **(4)** Woodside should consult with Traditional Owners where appropriate.
- On 31 August 2023, Woodside responded to WAM and confirmed the following:
 - Woodside had contacted the Commonwealth regulator DCCEEW regarding this EP.
 - Woodside was aware of the Commonwealth Government’s Underwater Cultural Heritage (UCH) Guidance document and draft Guidelines for Working in Near and Offshore Environment to Protect Underwater Cultural Heritage.
 - Prior to seabed disturbance activities, Woodside would undertake a review of existing survey data by a suitably qualified marine archaeologist to undertake a UCH Desktop Assessment to identify Aboriginal and non-Aboriginal UCH within the project area.
 - Woodside consults with Traditional Owners in the course of preparing EPs and also engages in ongoing consultation subsequent to the approval of EPs. The Traditional Owner identification and consultation methodologies and outcomes were described in the EP. No new controls had been identified in response to this.
 - As per Woodside’s ongoing consultation approach, feedback and comments received continued to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>WAM advised:</p> <ul style="list-style-type: none"> • (1) Under the Underwater Cultural Heritage Act 2018 (Cwth), proponents were in the first place required to contact DCCEEW who would engage with WAM if necessary, • (2) Woodside should refer to the Commonwealth Government's Underwater Cultural Heritage Guidance for Offshore Developments document for UCH assessments and the Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, • (3) Woodside should engage a suitably qualified and experienced maritime archaeologist to undertake a UCH Desktop Assessment to identify Aboriginal and non-Aboriginal UCH within the project area, • (4) Woodside should consult with Traditional Owners where appropriate. <p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside confirmed:</p> <ul style="list-style-type: none"> • (1) It had contacted the Commonwealth regulator DCCEEW regarding this EP. • (2) It was aware of the Commonwealth Government's Underwater Cultural Heritage (UCH) Guidance document and draft Guidelines for Working in Near and Offshore Environment to Protect Underwater Cultural Heritage. • (3) It would undertake a UCH Desktop Assessment to identify Aboriginal and non-Aboriginal UCH within the project area. • (4) It consults with Traditional Owners as described in the EP. No new controls had been identified in response to this. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>(2 3, 4) Woodside will conduct a desktop review of existing survey data by a suitably qualified maritime archaeologist to inform areas for laydown of equipment to avoid or where not possible, minimise physical impacts to cultural heritage areas or prospective areas, as referenced as PS 3.1 in the EP. This assessment is consistent with the draft guidelines for working in the near and offshore environment to protect Underwater Cultural Heritage.</p> <p>(4) Woodside has consulted with relevant Traditional Owners, as described in Section 6 of the EP and summarized here in Appendix F.</p> <p>No additional measures or controls are required.</p>
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Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel) (formerly DAWE)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DAFF for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DAFF DAWE on 24 July 2023 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 19 July 2023 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to DAFF on 24 July 2023 based on their function, interest and activities.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the DAFF with the opportunity to provide feedback over a 5 month period.

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<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed DAFF (<i>formerly DAWE</i>) advising of the proposed activity (Record of Consultation, reference 1.6) and provided a Consultation Information Sheet and an Historical Exploration Wellhead Information Sheet. On 24 July 2023, Woodside emailed DAFF advising of the proposed activity (Record of Consultation, reference 3.18) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed DAFF following up on the proposed activity (Record of Consultation, reference 4.35), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Vessels are required to comply with the <i>Australian Biosecurity Act 2015</i>, specifically the Australian Ballast Water Management Requirements (as defined under the Biosecurity Act 2015) (aligned with the International Convention for the Control and Management of Ships’ Ballast Water and Sediments) to prevent introducing IMS. Vessels will be assessed and managed to prevent the introduction of invasive marine species in accordance with Woodside’s Invasive Marine Species Management Plan (see Section 7.8.7).</p> <p>No additional measures of controls are required.</p>
<p>Department of Climate Change, Energy, the Environment and Water (DCCEEW) (<i>formerly the Department of Agriculture, Water and the Environment DAWE</i>)</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DCCEEW for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to DCCEEW on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. 		

<ul style="list-style-type: none"> • Consultation information provided to DCCEEW on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the DCCEEW with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed <i>DCCEEW (formerly DAWE)</i> advising of the proposed activity (Record of Consultation, reference 1.6) and provided a Consultation Information Sheet and a Historical Exploration Wellhead Information Sheet. • On 24 July 2023, Woodside emailed DCCEEW advising of the proposed activity (Record of Consultation, reference 3.20) and provided a Consultation Information Sheet and a list of Commonwealth shipwrecks. • On 7 August 2023, Woodside emailed DCCEEW following up on the proposed activity (Record of Consultation, reference 4.19), and provided a Consultation Information Sheet and a list of Commonwealth shipwrecks. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	The EP demonstrates that there are no known underwater heritage sites or shipwrecks within the Operational Areas and identifies that there are no credible impacts to the values of any underwater heritage or shipwrecks as a result of planned activities (Section 5.6.1 and 7.2 of the EP). While impacts to underwater heritage sites or shipwrecks are possible in the event of an unplanned hydrocarbon spill, Woodside considers it has adopted appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of a hydrocarbon spill, as demonstrated in Section 7.8 of the EP. No additional measures or controls are required.
Director of National Parks (DNP)		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DNP for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DNP on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DNP with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DNP advising of the proposed activity (Record of Consultation, reference 1.8) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 7 June 2022, Woodside emailed DNP following up on consultation (Record of Consultation, reference 2.2) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 26 July 2022, DNP responded thanking Woodside for the opportunity to comment on the EP and:
 - **(1)** Noted the planned activities do not overlap any AMPs, there are no authorisation requirements from the DNP and there are no claims and objections at this time,
 - **(2)** Advised that DNP doesn't require further notification of progress made in relation to this activity unless details regarding the activity change and result in an overlap with or new impact to a marine park, or for emergency responses,
 - **(3)** Requested that the EP ensures the protection of marine park values, particularly the Flatback Turtle, Whale Shark and Pygmy Blue Whale which extend beyond the park boundaries,
 - **(4)** Referenced the NOPSEMA and Parks Australia guidance note that outlines what titleholders need to consider and evaluate for an EP and the North-west Marine Parks Network Management Plan 2018,
 - **(5)** Advised that it should be made aware of oil/gas pollution incidences which occur within a marine park or are likely to impact on a marine park as soon as possible.
- On 28 July 2022, Woodside responded thanking DNP for its feedback and noted DNP's confirmation that:
 - Planned activities did not overlap any AMPs,
 - There were no authorisation requirements from the DNP at the time,
 - There were no claims or objections at the time.
 - Woodside confirmed it had taken into consideration impacts on marine park values, including potential impacts to marine species including the Flatback Turtle, Whale Shark and Pygmy Blue Whale when developing the EP and summarised impacts assessed.

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<ul style="list-style-type: none"> - Woodside confirmed it would contact the DNP if details regarding the activity change and result in an overlap with or new impact to a marine park, or for emergency responses. • On 24 July 2023, Woodside emailed DNP advising of the proposed activity however the email was mistakenly sent to an incorrect email address (Record of Consultation, reference 3.21). • On 7 August 2023, Woodside emailed DNP advising of the proposed activity (Record of Consultation, reference 4.16) and provided a Consultation Information Sheet. • On 7 December 2023, DNP emailed Woodside: <ul style="list-style-type: none"> - (1) DNP noted as the planned activities do not overlap any AMPs, there are no authorisation requirements from the DNP, - (2) Woodside should consider the AMPs and their representativeness and ensure the EP for the proposed activity: <ul style="list-style-type: none"> ▪ Identifies and manages all impacts and risks on AMP values to an acceptable level and considers all options to avoid or reduce them to ALARP, ▪ Clearly demonstrates that the activity will not be inconsistent with the management plan. <p>DNP referred Woodside to the North-west Marine Parks Network Management Plan 2018 and the Australian Marine Parks Science Atlas.</p> - (3) DNP advised it did not require further notification of progress regarding this activity unless details regarding the activity changed and resulted in an overlap with or new impact to a marine park, or for emergency responses. - (4) Woodside’s EP should identify offshore petroleum activities to ensure risks to AMPs are assessed and effective migration applied to mitigate breaches to the EPBC Act, - (5) Woodside should make DNP aware of any oil/gas pollution incidences which occur within a marine park or are likely to impact on a marine park as soon as possible. • On 8 December 2023, Woodside thanked DNP for its response and advised: <ul style="list-style-type: none"> - Woodside noted DNP’s confirmation that: <ul style="list-style-type: none"> ▪ Planned activities do not overlap any Australian Marine Parks (AMPs), ▪ There are no authorisation requirements from the DNP at this time. - Woodside had taken into consideration the DNP and NOPSEMA’s ‘Petroleum Activities and Australian Marine Parks’ guidance note while preparing this EP to ensure the EP: <ul style="list-style-type: none"> ▪ Identifies and manages all impacts and risks on AMP values (including ecosystem values) to an acceptable level and has considered all options to avoid or reduce them to as low as reasonably practicable (ALARP), ▪ Clearly demonstrates that the activity will not be inconsistent with the North-west Marine Parks Network Management Plan 2018. - Woodside would notify DNP in relation to the activity if details regarding the activity changed and resulted in an overlap with, or new impact to, a marine park, or for emergency responses. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

<p>DNP:</p> <ul style="list-style-type: none"> • (1) Noted the planned activities did not overlap any AMPs, there were no authorisation requirements, and no claims and objections at this time, • (2) Advised it did not require further notification unless details regarding the activity change resulting in an overlap or new impact to a marine park, or for emergency responses, • (3) Requested the EP ensures the protection of marine park values, particularly the Flatback Turtle, Whale Shark and Pygmy Blue Whale which extend beyond the park boundaries, • (4) Referenced the NOPSEMA and Parks Australia guidance note that outlines what titleholders need to consider and evaluate for an EP and the North-west Marine Parks Network Management Plan 2018, • (5) Advised that it should be made aware of oil/gas pollution incidences which occur within a marine park or are likely to impact on a marine park as soon as possible. <p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Noted DNP had no objections or claims at this time and that planned activities did not overlap any AMPs, nor were there any authorisation requirements. • (2, 5) Confirmed it would contact the DNP if details regarding the activity change and result in an overlap with or new impact to a marine park, or for an emergency response, as per the commitment in the Oil Pollution First Strike Plan (Appendix H). • (3, 4) Confirmed it had taken into consideration impacts on marine park values, including potential impacts to marine species including the Flatback Turtle, Whale Shark and Pygmy Blue Whale when developing the EP and summarised impacts assessed. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>(2, 5) Woodside’s Oil Pollution First Strike Plan for this EP will incorporate notifications to DNP (See Appendix H of this EP).</p> <p>(3, 4) Woodside has assessed the environmental risks of planned activities in Section 7 of this EP.</p> <p>No additional measures or controls are required.</p>
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Ningaloo Coast World Heritage Advisory Committee (NCWHAC)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with NCWHAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Consultation information provided to NCWHAC on 24 July 2023 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DNP with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed NCWHAC, advising of the proposed activity (Record of Consultation, reference 3.3) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed NCWHAC, following up on the proposed activity (Record of Consultation, reference 4.12), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Department of Biodiversity, Conservation and Attractions (DBCA)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DBCA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to DBCA on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DBCA with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DBCA advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 1 June 2022, DBCA responded thanking Woodside for the consultation information and advised that it had no comments.

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<ul style="list-style-type: none"> • On 2 June 2022, Woodside responded thanking DBCA for its feedback. • On 24 July 2023, Woodside emailed DBCA advising of the proposed activity (Record of Consultation, reference 3.1) and provided a Consultation Information Sheet. • On 28 July 2023, DBCA emailed Woodside to advise it had reviewed the documentation provided and other readily available information, and provided the following comments: <ul style="list-style-type: none"> - (1) DBCA has previously provided comment to Woodside in relation to petroleum production activities in proximity to ecologically sensitive receptors including marine parks and other reserves managed by DBCA under the CALM Act. In particular, DBCA’s comments relate to the need for comprehensive baseline monitoring of these receptors and oil spill response preparedness. Noting that DBCA has received responses from Woodside in relation to this advice, DBCA would like to reiterate its comments in this instance in relation to the Montebello Islands Marine Park (M 9) and Barrow Island Marine Management Area (M 11) which are located in proximity to the proposed activities. - (2) Should Woodside have any additional information in relation to its monitoring or oil spill response preparedness for these decommissioning activities for DBCA’s information, this would be welcome. - (3) Woodside should be aware that any activities requiring access to reserves managed by DBCA under the CALM Act or requiring the taking / disturbance of threatened fauna listed under the BC Act in State waters may require additional approvals under this legislation, and early consultation with DBCA is recommended. - (4) Following DBCA’s previous comments to Woodside on 29 May 2023 regarding consultation on another EP (Julimar Development Project Phase 3), Woodside should be aware of updated content regarding best-practice industry standards in managing potential impacts of light pollution on marine and other fauna, titled National Light Pollution Guidelines for Wildlife (DCCEEW 2023). - (5) Further, Woodside should also refer to the Department of Transport’s current Industry Guidance Note, dated July 2020, titled Marine Oil Pollution: Response and Consultation Arrangements. • On 11 August 2023, Woodside: <ul style="list-style-type: none"> - Noted DBCA’s previous comments regarding petroleum production activities in proximity to ecologically sensitive receptors including marine parks and other reserves managed by DBCA under the CALM Act and acknowledged DBCA’s comments in relation to the Montebello Islands Marine Park (M 9) and Barrow Island Marine Management Area (M 11). Woodside advised it maintained a baselines studies database based on Woodside commissioned studies, scientific publications, and publicly available study reports which includes documentation of baseline for: Barrow Island Marine Management Area and Montebello Islands Marine Park. - Acknowledged that any activities requiring access to reserves managed by DBCA under the CALM Act or requiring the taking / disturbance of threatened fauna listed under the BC Act in State waters may require additional approvals and will consult on this with DBCA as early as possible. - Confirmed awareness of the updated National Light Pollution Guidelines for Wildlife (DCCEEW 2023) and the Department of Transport’s July 2020 Guidance Note ‘Marine Oil Pollution: Response and Consultation Arrangements’. - Noted it had prepared its Oil Pollution First Strike Plan for this activity in alignment with the requirements of the DoT’s Guidance Note. A draft copy of this plan had been provided to DoT and the Australian Maritime Safety Agency (AMSA) for pre-submission review and comment. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

<p>DBCA:</p> <ul style="list-style-type: none"> • (1) Advised the need for baseline monitoring of ecologically sensitive receptors and oil spill response preparedness, and reiterated its comments in relation to the Montebello Islands Marine Park (M 9) and Barrow Island Marine Management Area (M 11) located in proximity to the proposed activities, • (2) Welcomed additional information in relation to Woodside’s monitoring or oil spill response preparedness, • (3) Advised that activities requiring access to reserves managed by DBCA under the CALM Act or requiring the taking / disturbance of threatened fauna listed under the BC Act in State waters may require additional approvals, • (4) Following comments regarding another EP (Julimar Development Project Phase 3), Woodside should be aware of updated best-practice industry standards in managing potential impacts of light pollution on marine and other fauna, • (5) Woodside should refer to DoT’s Marine Oil Pollution Guidance Note (July 2020). <p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Noted DBCA’s comments regarding ecologically sensitive receptors including marine parks and the Montebello Islands Marine Park (M 9) and Barrow Island Marine Management Area (M 11) and advised it maintained a baselines studies database, • (3) Acknowledged that activities requiring access to reserves managed by DBCA or requiring the taking / disturbance of threatened fauna listed under the BC Act in State waters may require additional approvals and will consult on this with DBCA as early as possible, • (4) Confirmed awareness of the updated Guidelines, • (2, 5) Noted it had prepared its Oil Pollution First Strike Plan for this activity in alignment with the requirements of the DoT’s Guidance Note and that a draft had been provided to DoT and AMSA. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) The EP demonstrates that the proposed activities are outside the boundaries of a proclaimed State Marine Park and identifies that there are no credible impacts to the values of any State Marine Parks as a result of planned activities (Section 5.5 and Section 7.7 of the EP). While impacts to Commonwealth Marine Parks are possible in the event of an unplanned hydrocarbon spill, Woodside considers it adopts appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of a hydrocarbon spill, as demonstrated in Section 7.8 of the EP.</p> <p>(2, 5) Woodside has prepared an Oil Spill Preparedness and Response Mitigation Assessment (Appendix D) and Oil Pollution First Strike Plan (Appendix H) for this EP.</p> <p>(3) Not required.</p> <p>Woodside’s impact assessment for light emissions is based on recommendations of the National Light Pollution Guidelines for Wildlife (see Section 7.7.7).</p> <p>Planned activities do not impact DBCA’s functions, interests or activities.</p> <p>The EP demonstrates that the proposed activities are outside the boundaries of a proclaimed State Marine Park and identifies that there are no credible risks as part of planned activities that have potential to impact the values of any marine parks (Section 7.8).</p> <p>No additional measures or controls are required.</p>
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Commonwealth and WA State Government Departments or Agencies – Industry

Department of Industry, Science and Resources (DISR) (formerly DISER)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DISR for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to DISR on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the DISR with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed DISER advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet. • On 24 July 2023, Woodside emailed DISR (formerly DISER) advising of the proposed activity (Record of Consultation, reference 3.1) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed DISR (formerly DISER) following up on the proposed activity (Record of Consultation, reference 4.4), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) (formerly DMIRS)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with DEMIRS for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. 		

- Consultation information provided to DEMIRS on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DMIRS with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed DEMIRS advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 15 June 2022, DEMIRS responded:
 - Acknowledging receipt consultation information.
 - **(1)** Advising that it had reviewed the information and did not require any further information at this stage.
 - **(2)** Requested that commencement and cessation notifications for the activity are sent to DEMIRS; and
 - **(3)** Noted its Consultation Guidance Note for reporting of incidents that could potentially impact on any land or water under State jurisdiction.
- On 16 June 2022, Woodside thanked DEMIRS for its feedback and acknowledged that DEMIRS had reviewed the consultation information and did not require any further information at this stage.
 - Woodside confirmed it would send DEMIRS commencement and cessation notifications for the activity.
- On 24 July 2023, Woodside emailed DEMIRS advising of the proposed activity (Record of Consultation, reference 3.1) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed DEMIRS following up on the proposed activity (Record of Consultation, reference 4.4), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
DEMIRS: <ul style="list-style-type: none"> • (1) Did not require further information, • (2) Requested Woodside send commencement and cessation notifications, and (3) Noted its Consultation Guidance Note for reporting of incidents that could potentially 	Woodside: <ul style="list-style-type: none"> • (1) Noted that DEMIRS had reviewed the information sent and did not require further information, • (2) Confirmed it would send DMIRS commencement and cessation notifications for the activity. • (3) Noted DEMIRS’ Consultation Guidance Note for reporting of incidents. 	<ul style="list-style-type: none"> (1) Not required. (2) Woodside will provide notifications to DEMIRS prior to the commencement and at the end of the activity, as referenced in Section 8.9 of this EP. (3) Not required.

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<p>impact on any land or water under State jurisdiction.</p>		<p>No additional measures or controls are required.</p>
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Commonwealth Commercial fisheries and representative bodies

North West Slope and Trawl Fishery

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with North West Slope and Trawl Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to North West Slope and Trawl Fishery on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the North West Slope and Trawl Fishery with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed North West Slope and Trawl Fishery, advising of the proposed activity (Record of Consultation, reference 3.13) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed North West Slope and Trawl Fishery, following up on the proposed activity (Record of Consultation, reference 4.29), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional measures or controls are required.</p>

Western Deepwater Trawl Fishery

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Western Deepwater Trawl Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Western Deepwater Trawl Fishery on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Deepwater Trawl Fishery with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Western Deepwater Trawl Fishery, advising of the proposed activity (Record of Consultation, reference 3.13) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Western Deepwater Trawl Fishery, following up on the proposed activity (Record of Consultation, reference 4.29), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Commonwealth Fisheries Association (CFA)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with CFA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to CFA on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.

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<ul style="list-style-type: none"> Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the CFA with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed CFA advising of the proposed activity (Record of Consultation, reference 1.15) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map. On 19 September 2023, Woodside emailed CFA advising of the proposed activity (Record of Consultation, reference 4.38) and provided a Consultation Information Sheet. On 9 October 2023, Woodside emailed CFA following up on the proposed activity (Record of Consultation, reference 4.39), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
<p>State Commercial fisheries and representative bodies</p>		
<p>Marine Aquarium Managed Fishery</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Marine Aquarium Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. 		

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Marine Aquarium Managed Fishery on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Marine Aquarium Managed Fishery with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside sent a letter to the Marine Aquarium Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet.
- On 9 August 2023, Woodside sent a follow up letter to Marine Aquarium Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Mackerel Managed Fishery (Area 2)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Mackerel Managed Fishery (Area 2) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Mackerel Managed Fishery (Area 2) on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Mackerel Managed Fishery (Area 2) with the opportunity to provide feedback over a 19 month period.

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Summary of consultation provided and responses:		
<ul style="list-style-type: none"> On 9 May 2022, Woodside sent a letter to Mackerel Managed Fishery (Area 2) advising of the proposed activity (Record of Consultation, reference 1.11) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map Record of Consultation, reference 1.25). On 7 June 2022, Woodside sent a letter to Mackerel Managed Fishery (Area 2) following up on consultation (Record of Consultation, reference 2.6) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map. On 24 July 2023, Woodside sent a letter to Mackerel Managed Fishery (Area 2) advising of the proposed activity (Record of Consultation, reference 3.15) and provided a Consultation Information Sheet. On 9 August 2023, Woodside sent a letter to Mackerel Managed Fishery (Area 2) following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet On 7 September 2023, in addition to Woodside’s letter to Mackerel Managed Fishery (Area 2) licence holders, WAFIC sent consultation information to Mackerel Managed Fisheries (Area 2) on Woodside’s behalf under WAFIC’s fee-for-service arrangement. On 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders including Mackerel Managed Fisheries (Area 2). 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP. Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP. No additional measures or controls are required.
Pilbara Crab Managed Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Pilbara Crab Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. 		

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<ul style="list-style-type: none"> • Consultation information provided to Pilbara Crab Managed Fishery on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Pilbara Crab Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Pilbara Crab Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet. • On 9 August 2023, Woodside emailed Pilbara Crab Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
West Coast Deep Sea Crustacean Managed Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with West Coast Deep Sea Crustacean Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to West Coast Deep Sea Crustacean Managed Fishery on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the West Coast Deep Sea Crustacean Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed West Coast Deep Sea Crustacean Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet. • On 9 August 2023, Woodside emailed West Coast Deep Sea Crustacean Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet. 		
<p>This document is protected by copyright. No part of this document may be reproduced, adapted, transmitted, or stored in any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved.</p> <p>Controlled Ref No: SA0006AH0000008 Revision: 0 Page 68 of 167</p> <p style="text-align: center;">Uncontrolled when printed. Refer to electronic version for most up to date information.</p>		

<ul style="list-style-type: none"> • (1) On 7 September 2023, in addition to Woodside’s letter to West Coast Deep Sea Crustacean Managed Fishery, WAFIC sent consultation information to West Coast Deep Sea Crustacean Managed Fishery on Woodside’s behalf under WAFIC’s fee-for-service arrangement. WAFIC noted that West Coast Deep Sea Crustacean Managed Fishery is not active in the Operational Areas but has asked WAFIC to be kept informed about activities for this EP. • 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders including West Coast Deep Sea Crustacean Managed Fishery. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) WAFIC advised Woodside that despite West Coast Deep Sea Crustacean Managed Fishery not being active in the Operational Areas, it asked WAFIC to be kept informed about activities for this EP. While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside acknowledges West Coast Deep Sea Crustacean Managed Fishery’s request for notification. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP. No additional measures of controls are required.</p>
Specimen Shell Managed Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Specimen Shell Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Specimen Shell Managed Fishery on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Specimen Shell Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Specimen Shell Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet. • On 9 August 2023, Woodside emailed Specimen Shell Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Onslow Prawn Managed Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Onslow Prawn Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Onslow Prawn Managed Fishery on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Onslow Prawn Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Onslow Prawn Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet. • On 9 August 2023, Woodside emailed Onslow Prawn Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Western Australian Sea Cucumber Fishery		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Western Australian Sea Cucumber Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Western Australian Sea Cucumber Fishery on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Australian Sea Cucumber Fishery with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Western Australian Sea Cucumber Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet.
- On 9 August 2023, Woodside emailed Western Australian Sea Cucumber Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Exmouth Gulf Prawn Managed Fishery

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Exmouth Gulf Prawn Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Exmouth Gulf Prawn Managed Fishery on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.

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<ul style="list-style-type: none"> Woodside has provided the Exmouth Gulf Prawn Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed Exmouth Gulf Prawn Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.11) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Exmouth Gulf Prawn Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.31), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Nickol Bay Prawn Managed Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Nickol Bay Prawn Managed Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to Nickol Bay Prawn Managed Fishery on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the Nickol Bay Prawn Managed Fishery with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside sent a letter to Nickol Bay Prawn Managed Fishery advising of the proposed activity (Record of Consultation, reference 3.14) and provided a Consultation Information Sheet. On 9 August 2023, Woodside sent a follow up letter to Nickol Bay Prawn Managed Fishery following up on the proposed activity (Record of Consultation, reference 4.36), and provided a Consultation Information Sheet. 		

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Pilbara Trawl Fishery

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Pilbara Trawl Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Pilbara Trawl Fishery on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Pilbara Trawl Fishery with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Pilbara Trawl Fishery advising of the proposed activity (Record of Consultation, reference 1.12) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map (Record of Consultation, reference 1.25).
- On 7 June 2022, Woodside emailed Pilbara Trawl Fishery following up on consultation (Record of Consultation, reference 2.5) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map.
- On 24 July 2023, Woodside emailed Pilbara Trawl Fishery advising of the proposed activity (Record of Consultation, reference 3.11) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Pilbara Trawl Fishery following up on the proposed activity (Record of Consultation, reference 4.31), and provided a Consultation Information Sheet.
- On 7 September 2023, in addition to Woodside’s letter to Pilbara Trawl Fishery, WAFIC sent consultation information to Pilbara Trawl Fishery on Woodside’s behalf under WAFIC’s fee-for-service arrangement.
- 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders including Pilbara Trawl Fishery.

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>

Pilbara Trap Fishery

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Pilbara Trap Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Pilbara Trap Fishery on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Pilbara Trap Fishery with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Pilbara Trap Fishery advising of the proposed activity (Record of Consultation, reference 1.12) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map (Record of Consultation, reference 1.25).
- On 7 June 2022, Woodside emailed Pilbara Trap Fishery following up on consultation (Record of Consultation, reference 2.5) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map.
- On 24 July 2023, Woodside emailed Pilbara Trap Fishery advising of the proposed activity (Record of Consultation, reference 3.11) and provided a Consultation Information Sheet.

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<ul style="list-style-type: none"> On 7 August 2023, Woodside emailed Pilbara Trap Fishery following up on the proposed activity (Record of Consultation, reference 4.31), and provided a Consultation Information Sheet. On 7 September 2023, in addition to Woodside's letter to Pilbara Trap Fishery, WAFIC sent consultation information to Pilbara Trap Fishery on Woodside's behalf under WAFIC's fee-for-service arrangement. 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders including Pilbara Trap Fishery. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
Pilbara Line Fishery		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Pilbara Line Fishery for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to Pilbara Line Fishery on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Woodside has sent follow up emails seeking feedback on the proposed activities. Woodside has provided the Pilbara Line Fishery with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p>		

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<ul style="list-style-type: none"> On 9 May 2022, Woodside emailed Pilbara Line Fishery advising of the proposed activity (Record of Consultation, reference 1.12) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map (Record of Consultation, reference 1.25). On 7 June 2022, Woodside emailed Pilbara Line Fishery following up on consultation (Record of Consultation, reference 2.5) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map. On 24 July 2023, Woodside emailed Pilbara Line Fishery, advising of the proposed activity (Record of Consultation, reference 3.11) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Pilbara Line Fishery, following up on the proposed activity (Record of Consultation, reference 4.31), and provided a Consultation Information Sheet. On 7 September 2023, in addition to Woodside’s letter to Pilbara Line Fishery, WAFIC sent consultation information to Pilbara Line Fishery on Woodside’s behalf under WAFIC’s fee-for-service arrangement. 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders including Pilbara Line Fishery. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
Western Australian Fishing Industry Council (WAFIC)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with WAFIC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to WAFIC on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. 		

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the WAFIC with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed WAFIC advising of the proposed activity (Record of Consultation, reference 1.17) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map (Record of Consultation, reference 1.25).
- On 7 June 2022, Woodside emailed WAFIC following up on consultation (Record of Consultation, reference 2.4) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map.
- **(1)** On 4 July 2022, WAFIC responded advising that it supports Woodside's strategic approach to decommissioning and supports its proposal to remove 36 wellheads in the locations detailed.
 - **(2)** WAFIC requested activity notifications to understand when exclusion zones will be expanded and when certain marine areas will have an increase in turbidity from seabed disturbance.
- On 11 July 2022, Woodside responded thanking WAFIC for its feedback and advised:
 - Woodside will notify WAFIC prior to the commencement and upon completion of the activities. Additionally, marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby,
 - Localised seabed disturbance will occur when cutting and removing the well infrastructure, with disturbance is expected to be minimal. Any increase in turbidity will be localised and temporary with no lasting effects.
- On 24 July 2023, Woodside emailed WAFIC advising of the proposed activity (Record of Consultation, reference 3.12) and provided a Consultation Information Sheet.
- On 25 July 2023, WAFIC wrote to Woodside outlining concerns with the volume of consultation. WAFIC noted:
 - Since start of 2023, it had received more than 60 emails seeking feedback for proposed activities,
 - Each email placed workload pressures on WAFIC without sufficient resources to meet the deadlines,
 - It had a number of other oil and gas titleholders operating in WA waters seeking similar feedback for their activities,
 - WAFIC requested Woodside to review its current consultation methodology for engagement with WAFIC.
- On 7 August 2023, Woodside emailed WAFIC following up on the proposed activity (Record of Consultation, reference 4.30), and provided a Consultation Information Sheet.
- On 16 August 2023, Woodside emailed WAFIC and confirmed a meeting for 28 August 2023. Woodside also provided an outline of upcoming EP consultation (not relevant to this EP).
- On 25 August 2023, Woodside replied to WAFIC's letter (dated 25 July 2023) and noted:

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- Woodside's consultation is designed to ensure that relevant persons are identified and given sufficient information and a reasonable period to make an informed assessment of the possible impacts of the proposed activity,
- Woodside is keen to meet with WAFIC to discuss a suitable consultation approach,
- Woodside thanked WAFIC for sharing its concerns and appreciated the opportunity to discuss these matters further and will be in touch to organise a suitable meeting date.
- On 28 August 2023, Woodside met with WAFIC to discuss consultation on EPs:
 - WAFIC noted the high level of consultation currently being experienced and resourcing requirements. It noted it needs to prioritise consultation and has provided guidance to offshore proponents,
 - Woodside discussed relevant persons consultation and acknowledged the high level of consultation to meet regulatory requirements and case law,
 - WAFIC noted the importance of genuine consultation and building a relationship with the commercial fishing sector,
 - Woodside sought to understand the most appropriate way to consult the commercial fishery sector,
 - WAFIC and Woodside agreed a more strategic approach to consultation was required, noting the WAFIC fee for service model,
 - Woodside recognised the need for WAFIC to be appropriately resourced to consider consultation materials,
 - It was noted it is challenging to make assumptions about certain offshore activities, for example considering water depth or distance from shore, to reduce consultation fatigue,
 - Pipeline installation, seismic and decommissioning are activities of the most interest to the commercial fishing sector,
 - WAFIC noted consultation at the Offshore Project Proposal stage was effective in understanding projects and upcoming work scopes,
 - Woodside and WAFIC agreed to identify a more strategic and tailored model to consult the commercial fishery sector,
 - Woodside gave a presentation on Environment Plan activities, consultation requirements, the environment that may be affected, and consultation on the Scarborough Offshore Facility and Trunkline Environment Plan.
- On 1 September 2023, Woodside phoned WAFIC to discuss the consultation approach and fee-for-service for this and other Woodside EPs and followed up with an email:
 - WAFIC confirmed as per its guideline, consultation should occur with licence holders in the operational areas and agreed to distribute consultation materials under fee for service for the three Woodside EPs, including this one,
 - WAFIC confirmed it had sufficient existing information to consult with licence holders,
 - Woodside and WAFIC reiterated plans to develop a longer term consultation model for future EPs.
- On 7 September 2023, WAFIC emailed relevant commercial fishing licence holders for this activity, as per the fee for service agreement. The email provided information about this activity and stated that WAFIC was working with Woodside to strategically streamline consultation with the commercial fishing industry. WAFIC requested that any feedback specific to the proposed activity was provided to them.
- On the same day, WAFIC emailed Woodside to confirm it had delivered consultation notification for this activity (and requested feedback) to licence holders in the following fisheries:
 - Mackerel Managed Fishery (Area 2),

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<ul style="list-style-type: none"> - Pilbara Fish Trawl Managed Fishery, - Pilbara Trap Managed Fishery, - Pilbara Line Fishery (Condition), - West Coast Deep Sea Crustacean (as per its request to be kept informed about activities for this EP). • (3) 26 September 2023, WAFIC emailed Woodside reporting that no feedback had been received from licence holders regarding this activity however WAFIC had the following comments/questions: <ul style="list-style-type: none"> - Would elastomeric materials within seal components be removed as part of wellhead removals, - Would the activity involve full or partial removal of wellhead infrastructure, - As per its Oil and Gas Consultation Framework, WAFIC objected to infrastructure remaining in situ due to snagging risk to current and future fishing operations. • On 2 November 2023, Woodside responded as follows: <ul style="list-style-type: none"> - The entire wellhead assembly would be removed and retrieved for onshore disposal, including the elastomeric material in the wellhead, - The EP included a commitment to remove all well infrastructure above the mudline, for well accepted as permanently abandoned, and to conduct an as left survey to confirm this would be completed, - Woodside had noted WAFIC’s framework and reiterated that all wellheads within this EP were planned to be fully removed. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>WAFIC:</p> <ul style="list-style-type: none"> - (1) Advised it supports Woodside’s strategic approach to decommissioning and the proposal to remove the 36 wellheads, - (2) Requested activity notifications to understand when exclusion zones will be expanded and when certain marine areas will have an increase in turbidity from seabed disturbance, - (3) Queried whether the elastomeric materials within seal components would be removed and if the activity involved full or partial removal of wellhead infrastructure. WAFIC stated it objected to infrastructure remaining in situ due to snagging risk to fishing operations. 	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Acknowledged WAFIC’s support of its approach to decommissioning, - (2) Advised it would notify WAFIC prior to the commencement and on completion of the activities. Additionally, marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby. • (3) Advised the entire wellhead assembly would be removed and retrieved for onshore disposal, including the elastomeric material in the wellhead. Woodside was also committed to removing all well infrastructure above the mudline, for well accepted as permanently abandoned, and to conduct an as left survey to confirm this would be completed. Woodside reiterated that all wellheads within this EP were planned to be fully removed. <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>(1) Not required. (2) Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP. (3) Not required</p> <p>No additional measures or controls are required.</p>

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While feedback has been received, there were no objections or claims.		
Recreational marine users and representative bodies		
Exmouth Recreational Marine Users		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Exmouth Recreational Marine Users for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Exmouth Recreational Marine Users on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Exmouth Recreational Marine Users with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Exmouth Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 3.17) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Exmouth Recreational Marine Users following up on the proposed activity (Record of Consultation, reference 4.25), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Gascoyne Recreational Marine Users		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Gascoyne Recreational Marine Users for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. 		

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Gascoyne Recreational Marine Users on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Gascoyne Recreational Marine Users with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside sent a letter to Gascoyne Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 3.16) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside sent a follow up letter to Gascoyne Recreational Marine Users following up on the proposed activity (Record of Consultation, reference 4.24), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Pilbara/Kimberley Recreational Marine Users

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Pilbara/Kimberley Recreational Marine Users for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Pilbara/Kimberley Recreational Marine Users on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Pilbara/Kimberley Recreational Marine Users with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

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<ul style="list-style-type: none"> On 24 July 2023, Woodside sent a letter to Pilbara/Kimberley Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 3.16) and provided a Consultation Information Sheet. On 7 August 2023, Woodside sent a follow up letter to Pilbara/Kimberley Recreational Marine Users following up on the proposed activity (Record of Consultation, reference 4.24), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Karratha Recreational Marine Users		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Karratha Recreational Marine Users for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to Karratha Recreational Marine Users on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the Karratha Recreational Marine Users with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed Karratha Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 3.17) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Karratha Recreational Marine Users following up on the proposed activity (Record of Consultation, reference 4.25), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional measures or controls are required.</p>
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Recfishwest

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Recfishwest for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Recfishwest on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Recfishwest with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Recfishwest advising of the proposed activity (Record of Consultation, reference 3.17) and provided a Consultation Information Sheet.
- On 9 August 2023, Woodside emailed Recfishwest following up on the proposed activity (Record of Consultation, reference 4.25), and provided a Consultation Information Sheet.
- On 10 August 2023, Woodside met with Recfishwest regarding a fee for service.
- On 11 August 2023, Recfishwest emailed to advise:
 - **(1)** While the proposed activities were located approximately 117-170 km from Dampier, their proximity to the Montebello Islands and the Commonwealth Montebello Marine Park (as close as 8 km) means the area is still accessed by the charter industry and recreational fishers in larger vessels. Recfishwest should therefore be kept informed as activity dates are confirmed so that it can communicate relevant details to the recreational fishing community,
 - **(2)** With regard to Woodside’s exploration of a Carbon Capture and Storage (CCS) opportunity for the Angel wellheads and the potential to leave them in situ, Recfishwest noted productive fish habitats created by subsea structures such as wellheads can be beneficial to recreational fishing experiences and as such it looks forward to hearing more about this opportunity and any other opportunities to leave structures in situ should they deliver equal or better environmental outcomes compared to complete removal.
- On 18 August 2023, Woodside emailed Recfishwest to confirm it will notify Recfishwest prior to activity start dates so Recfishwest can communicate relevant details with the recreational fishing community. Woodside noted Recfishwest’s comment regarding the CCS opportunities and potential to leave them in situ and advised that

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<p>should the Angel wellheads be left in situ, Woodside would notify relevant State and Commonwealth fisheries of the locations of the wellheads and that they will remain in situ in perpetuity. Updates on other opportunities such as CCS or opportunities to leave structures in situ would be through future Woodside consultation specific to the relevant EP.</p>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>Recfishwest:</p> <ul style="list-style-type: none"> - (1) Advised that as the activities were in proximity to the Montebello Islands and the Commonwealth Montebello Marine Park, the area was still accessed by the charter industry and recreational fishers in larger vessels and therefore Recfishwest should be kept informed as to the activity dates so it can communicate details to the recreational fishing community. - (2) Regarding CCS opportunities and the potential to leave the Angel wellheads in situ, Recfishwest noted productive fish habitats created by wellheads can be beneficial removal and looks forward to hearing more about this. <p>While feedback was received, there were no objections or claims.</p>	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Confirmed it would notify Recfishwest prior to activity commencement, - (2) Advised that should the Angel wellheads be left in situ, Woodside would notify relevant State and Commonwealth fisheries of the locations of the wellheads and that they will remain in situ in perpetuity. <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(3) Woodside will provide notifications to AFMA, DAFF–Fisheries, CFA, DPIRD, WAFIC prior to the commencement and at the end of the activity, as referenced as PS 1.4 in this EP.</p> <p>(4) Not required.</p> <p>No additional measures or controls are required.</p>

Marine Tourism WA

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Marine Tourism WA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Marine Tourism WA on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Marine Tourism WA with the opportunity to provide feedback over a 5 month period.

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<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed Marine Tourism WA advising of the proposed activity (Record of Consultation, reference 3.17) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Marine Tourism WA following up on the proposed activity (Record of Consultation, reference 4.25), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional EP controls are required.
WA Game Fishing Association		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with WA Game Fishing Association for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to WA Game Fishing Association on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the WA Game Fishing Association with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed WA Game Fishing Association advising of the proposed activity (Record of Consultation, reference 3.17) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed WA Game Fishing Association following up on the proposed activity (Record of Consultation, reference 4.25), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional measures or controls are required.</p>
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Titleholders and Operators

Chevron Australia

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Chevron Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Chevron Australia on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Chevron Australia with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Chevron Australia advising of the proposed activity (Record of Consultation, reference 1.14) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28).
- On 9 May 2022, Woodside emailed Chevron (TAPL), via Chevron Australia, advising of the proposed activity (Record of Consultation, reference 1.14) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28).
- On 24 July 2023, Woodside emailed Chevron Australia advising of the proposed activity (Record of Consultation, reference 3.7) and provided a Consultation Information Sheet and GIS shape files.
- On 7 August 2023, Woodside emailed Chevron Australia following up on the proposed activity (Record of Consultation, reference 4.21), and provided a Consultation Information Sheet.

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Western Gas		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Western Gas for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Western Gas on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Western Gas with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Western Gas advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Western Gas following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
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Exxon Mobil Australia Resources Company

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Exxon Mobil Australia Resources Company for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Exxon Mobil Australia Resources Company on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Exxon Mobil Australia Resources Company with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Mobil Australia Resources Company advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28).
- On 24 July 2023, Woodside emailed Exxon Mobil Australia Resources Company (formerly Mobil Australia Resources Company) advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Exxon Mobil Australia Resources Company following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

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Shell Australia		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Shell Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to Shell Australia on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent follow up emails seeking feedback on the proposed activities. • Woodside has provided the Shell Australia with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed Shell Australia advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). • On 24 July 2023, Woodside emailed Shell Australia advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Shell Australia following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
BP Developments Australia		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with BP Developments Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to BP Developments Australia on 9 May 2022 based on their function, interest and activities. 		

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<ul style="list-style-type: none"> Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Woodside has sent follow up emails seeking feedback on the proposed activities. Woodside has provided the BP Developments Australia with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed BP Developments Australia advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). On 24 July 2023, Woodside emailed BP Developments Australia advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed BP Developments Australia following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. (1) On 9 August 2023, BP Developments Australia emailed to advise it had no objections or other feedback at this time. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) BP Developments Australia advised it had no objections or other feedback at this time. While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside noted BP Developments Australia had no objections. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required. No additional measures or controls are required.</p>
Carnarvon Energy		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Carnarvon Energy for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to Carnarvon Energy on 24 July 2023 based on their function, interest and activities. 		

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Carnarvon Energy with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Carnarvon Energy advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Carnarvon Energy following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet.
- **(1)** On 21 August 2023, Carnarvon Energy emailed Woodside to advise it had reviewed the consultation information provided and had no further request for any more information.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) Carnarvon Energy advised it had reviewed the consultation information and had no further request for information.</p> <p>While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside noted that Carnarvon Energy had reviewed the consultation information and had no further request for information.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>No additional measures or controls are required.</p>

Osaka Gas Gorgon

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Osaka Gas Gorgon for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Osaka Gas Gorgon on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Osaka Gas Gorgon with the opportunity to provide feedback over a 19 month period.

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<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed Osaka Gas Gorgon, via Chevron Australia, advising of the proposed activity (Record of Consultation, reference 1.14) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). On 24 July 2023, Woodside emailed Osaka Gas Gorgon advising of the proposed activity (Record of Consultation, reference 3.7) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Osaka Gas Gorgon following up on the proposed activity (Record of Consultation, reference 4.21), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
<p>Tokyo Gas Gorgon</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Tokyo Gas Gorgon for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to Tokyo Gas Gorgon on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Woodside has sent follow up emails seeking feedback on the proposed activities. Woodside has provided the Tokyo Gas Gorgon with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed Tokyo Gas Gorgon, via Chevron Australia, advising of the proposed activity (Record of Consultation, reference 1.14) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). On 24 July 2023, Woodside emailed Tokyo Gas Gorgon advising of the proposed activity (Record of Consultation, reference 3.7) and provided a Consultation Information Sheet. 		

<ul style="list-style-type: none"> On 7 August 2023, Woodside emailed Tokyo Gas Gorgon following up on the proposed activity (Record of Consultation, reference 4.21), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
JERA Gorgon		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with JERA Gorgon for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to JERA Gorgon on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Woodside has sent follow up emails seeking feedback on the proposed activities. Woodside has provided the JERA Gorgon with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed JERA Gorgon, via Chevron Australia, advising of the proposed activity (Record of Consultation, reference 1.14) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). On 24 July 2023, Woodside emailed JERA advising of the proposed activity (Record of Consultation, reference 3.7) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed JERA following up on the proposed activity (Record of Consultation, reference 4.21), and provided a Consultation Information Sheet. 		

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
PE Wheatstone		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with PE Wheatstone for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to PE Wheatstone on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent follow up emails seeking feedback on the proposed activities. • Woodside has provided the PE Wheatstone with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed PE Wheatstone advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). • On 24 July 2023, Woodside emailed PE Wheatstone advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed PE Wheatstone following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>No additional measures or controls are required.</p>
<p>Kyushu Electric Wheatstone</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Kyushu Electric Wheatstone for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to Kyushu Electric Wheatstone on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent follow up emails seeking feedback on the proposed activities. • Woodside has provided the Kyushu Electric Wheatstone with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed Kyushu Electric Wheatstone advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). • On 24 July 2023, Woodside emailed Kyushu Electric Wheatstone advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Kyushu Electric Wheatstone following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>No additional measures or controls are required.</p>

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Eni Australia		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Eni Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Eni Australia on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Eni Australia with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Eni Australia advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Eni Australia following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Finder Energy (Finder No 16) (and subsidiary Searcher Energy)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Finder Energy for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to Finder Energy on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. 		

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Finder Energy with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Finder No 9 advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28).
- On 24 July 2023, Woodside emailed Finder Energy advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Finder Energy following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet.
- **(1)** On 8 August 2023, Finder Energy emailed to advise it had no objection or comment to the proposed activity.
- On 8 August 2023, Woodside emailed Finder Energy thanking it for its advice.
- **(2)** On 14 August 2023, Searcher Seismic emailed thanking Woodside for including it in consultation for this EP and asked to be included in notification of commencement but did not require further information on the activity at this stage. Searcher Seismic further stated should it have any need for SIMOPS for any future planned seismic activities, it would advise as appropriate.
- On 17 August 2023, Woodside emailed Searcher Seismic to investigate with which titleholder it was associated as Woodside did not have Searcher Seismic listed as relevant for this EP.
- On 25 August 2023, Woodside phoned Searcher Seismic to follow up on its email of 16 August 2023.
- **(2)** On 28 August 2023, Searcher Seismic returned Woodside’s phone message to explain it was a subsidiary of Finder Energy which is why it had contacted Woodside in response to consultation information for this EP.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) Finder Energy advised it had no objection or comment to the proposed activity.</p> <p>(2) Searcher Seismic confirmed it was a subsidiary of Finder Energy and advised it did not require any further information on the activity but asked to be notified when activities commenced.</p>	<p>(1) Woodside noted Finder Energy had no objection or comment.</p> <p>(2) Woodside confirmed Searcher Seismic was a subsidiary of Finder Energy and noted Searcher Seismic did not require any further information on the activity but requested to be notified when activities commenced.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it</p>	<p>(1) Not required.</p> <p>(2) Woodside will send Searcher Seismic start of activity notifications as referenced as PS 1.4 of the EP.</p> <p>No additional measures or controls are required.</p>

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While feedback has been received, there were no objections or claims.	will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	
KUFPEC		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with KUFPEC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to KUFPEC on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent follow up emails seeking feedback on the proposed activities. • Woodside has provided the KUFPEC with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed KUFPEC Australia (Wheatstone lagoon) advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). • On 24 July 2023, Woodside emailed KUFPEC advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed KUFPEC following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Vermillion Oil & Gas Australia		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Vermillion Oil & Gas Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Vermillion Oil & Gas Australia on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Vermillion Oil & Gas Australia with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Vermillion Oil & Gas Australia advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Vermillion Oil & Gas Australia following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.

Santos NA Energy Holdings / Santos Ltd / Santos WA Northwest / Santos Offshore / Santos WA Southwest / Santos (BOL) / Santos WA PVG (Santos)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Santos for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to Santos on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.

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- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Santos with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Santos advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28).
- On 24 July 2023, Woodside emailed Santos advising of the proposed activity (Record of Consultation, reference 3.5) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Santos following up on the proposed activity (Record of Consultation, reference 4.17), and provided a Consultation Information Sheet.
- **(1)** On 4 September 2023, Santos advised it had no comments on the proposed activities.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) Santos advised it had no comments on the proposed activities. While feedback, objections or claims received despite follow up.</p>	<p>(1) Woodside noted Santos has no comments on the proposed activities. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received, after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP.).</p>	<p>(1) Not required. No additional measures of controls are required.</p>

OMV Australia / Sapura OMV Upstream

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with OMV Australia / Sapura OMV Upstream for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to OMV Australia / Sapura OMV Upstream on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the OMV Australia / Sapura OMV Upstream with the opportunity to provide feedback over a 19 month period.

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<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed OMV Australia / Sapura OMV Upstream advising of the proposed activity (Record of Consultation, reference 1.13) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant Titleholder map (Record of Consultation, reference 1.28). On 4 December 2023, Woodside emailed OMV Australia / Sapura OMV Upstream advising of the proposed activity (Record of Consultation, reference 4.46) and provided a Consultation Information Sheet. On 11 December 2023, Woodside emailed OMV Australia / Sapura OMV Upstream following up on the proposed activity (Record of Consultation, reference 4.49), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>No additional measures or controls are required.</p>
<p>KATO Energy / KATO Corowa / KATO NWS / KATO Amulet (KATO)</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with KATO Energy for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to KATO Energy on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the KATO Energy with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed KATO advising of the proposed activity (Record of Consultation, reference 3.4) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed KATO following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>

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<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>No additional measures or controls are required.</p>
<p>INPEX Alpha</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with INPEX Alpha for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to INPEX Alpha on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the INPEX Alpha with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed INPEX Alpha advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet. • (1) On 31 July 2023, INPEX emailed Woodside to advise it had no comments or feedback to provide on the proposed activities. • On 31 July 2023, Woodside emailed INPEX thanking it for its email and noting INPEX does not have comments or feedback. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>(1) INPEX advised it had no comments or feedback on the proposed activities. While feedback, objections or claims received despite follow up.</p>	<p>(1) Woodside noted INPEX had no comments or feedback. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received, after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP.).</p>	<p>(1) Not required. No additional measures of controls are required.</p>
<p>JX Nippon O&G Exploration (Australia)</p>		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with JX Nippon O&G Exploration for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to JX Nippon O&G Exploration on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the JX Nippon O&G Exploration with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed JX Nippon O&G Exploration advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed JX Nippon O&G Exploration following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.

Longreach Capital Investments / Beagle No 1

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Longreach Capital Investments for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Longreach Capital Investments on 24 July 2023 based on their function, interest and activities.

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<ul style="list-style-type: none"> • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Longreach Capital Investments with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Longreach Capital Investments advising of the proposed activity (Record of Consultation, reference 3.6) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Longreach Capital Investments following up on the proposed activity (Record of Consultation, reference 4.18), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Peak Industry Representative bodies		
Australian Energy Producers (AEP) (formerly APPEA – name change occurred 1.12.23)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with APPEA for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Consultation information provided to APPEA on 9 May 2022 based on their function, interest and activities. • Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Woodside has sent follow up emails seeking feedback on the proposed activities. • Woodside has provided the APPEA with the opportunity to provide feedback over a 19 month period. <p>Summary of consultation provided and responses:</p>		

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<ul style="list-style-type: none"> On 9 May 2022, Woodside emailed APPEA advising of the proposed activity (Record of Consultation, reference 1.1) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet. On 24 July 2023, Woodside emailed APPEA advising of the proposed activity (Record of Consultation, reference 3.1) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed APPEA following up on the proposed activity (Record of Consultation, reference 4.4), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Traditional Custodians and nominated representative corporations		
Murujuga Aboriginal Corporation (MAC)		
MAC is established under the Burrup and Maitland Industrial Estates Agreement and is the representative body for the Traditional Custodians for Murujuga being the Ngarluma, the Mardudhunera, the Yaburara, the Yindjibarndi and the Wong-Goo-Tt-Oo peoples (collectively Ngarda-Ngarli). MAC is the cultural authority for Murujuga and is responsible for the management and protection of its cultural values.		
Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with MAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:		
Sufficient Information:		
<ul style="list-style-type: none"> Woodside sought direction on MAC’s preferred method of consultation. Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to MAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format. Articulated planned and unplanned environmental risks and impacts, with proposed controls. Set out in detail what was being sought through consultation. Asked for the consultation and information sheets to be distributed to members and individuals. Woodside has provided NOPSEMA’s Brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”. 		
Reasonable Period:		
<ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. 		

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- (1) Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to MAC on 2 August 2023.
- Woodside has provided the MAC with the opportunity to provide feedback over a 5 month period.

Woodside asked MAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on MAC's functions, interests or activities.

Summary of consultation provided and responses:

- On 18 July 2023, Woodside emailed MAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that MAC advised Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult in relation to the activities currently under consultation.
- On 26 July 2023, Woodside emailed MAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 1 August 2023, Woodside emailed MAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.23, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that MAC and its members may have within the EMBA, information on how MAC would like to engage, and requested that MAC provide information to members as required.

Woodside will continue to pursue an ongoing two-way relationship with MAC under the Proposed Program of Ongoing Engagement with Traditional Custodians.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).	No additional measures or controls are required.

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Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)

NTGAC is established under the Native Title Act 1993 by the Baiyungu people to represent the Baiyungu people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with NTGAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on NTGAC's preferred method of consultation. This resulted in a face-to-face meetings being coordinated at location of NTGAC's choosing, with NTGAC nominated representatives. These meetings included Woodside presenting information in a format and style that was readily accessible and appropriate.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to NTGAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to NTGAC on 1 August 2023.
- Woodside has provided the NTGAC with the opportunity to provide feedback over a 5 month period.

Woodside asked NTGAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NTGAC's functions, interests or activities

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Summary of consultation provided and responses:

- On 1 August 2023, Woodside emailed NTGAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.24, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that MAC and its members may have within the EMBA, information on how MAC would like to engage, and requested that MAC provide information to members as required.
- On 3 August 2023, Woodside emailed NTGAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that NTGAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult in relation to activity consultations. The email noted the upcoming meeting on 15 August 2023 which would include consultation on this EP.
- On 15 August 2023, Woodside met with NTGAC and discussed a range of activities including this activity. At the meeting Woodside:
 - Described the EP framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of EPs,
 - Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023,
 - Provided an overview of the broader EP activities that are relevant to the functions, interests and activities of NTGAC,
 - Spoke to the planned and unplanned impacts,
 - Sought to understand how Woodside's activities might impact NTGAC's values, interests and activities, any concerns NTGAC may have, how Woodside can protect their values, interests and activities, whether any other people or organisations should be consulted.
- At the 15 August 2023 meeting NTGAC asked the following questions and were provided the following feedback:
 - **(1)** NTGAC asked about ballast water discharges. Woodside described Invasive Marine Species requirements and controls such as hull cleaning, quarantine rules and dry docking, noting the risk was taken very seriously by Woodside,
 - **(2)** NTGAC asked about whale sightings and Woodside's response to sightings. Woodside responded that the response to whale sightings depended on the specific activity and that controls like Marine Mammal Observers were implemented for particular activities,
 - NTGAC stated its consultation expectations (two-way dialogue preferred over one-way presentations and requested that consultation meetings cover whole projects or phases rather than single EP activities which is too time consuming),
 - **(6)** NTGAC discussed social investment ideas with Woodside and how Woodside can support the local community. Woodside supported providing help, in various ways, as needed by the community.
 - **(3)** NTGAC requested that an independent environment assessment be funded. Woodside confirmed whether this meant a non-Woodside employee. NTGAC agreed.
 - **(5)** A proposed framework for consultation was discussed, involving Woodside funding General Project Reports to be written by an independent suitably qualified and experienced consultant, to be provided to NTGAC initially and then to Woodside. The General Project Reports outline the nature of the activities for each phase of the project and the risks associated with each of the relevant activities.
 - **(4)** NTGAC stated that it did not consider it had been consulted on a range of Woodside EPs, including for this proposed activity.

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<ul style="list-style-type: none"> On 31 August 2023, Woodside emailed NTGAC confirming actions arising from the meeting. Woodside also clarified that it disagreed that consultation had not begun on activities. Woodside confirmed that it does put all correspondence in the consultation table, other than sensitive information which would be dealt with in accordance with the direction of Traditional Owners and NOPSEMA guidelines, where relevant. <p>Woodside will continue to pursue an ongoing two-way relationship with NTGAC under the Proposed Program of Ongoing Engagement with Traditional Custodians.</p>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) During face-to-face engagement on 15 August 2023, NTGAC requested further information on topics related to this proposed activity and other Woodside activities which were responded to during the meeting:</p> <ul style="list-style-type: none"> How EMBA’s are developed, Ballast water discharges, The expected probability of well loss of containment and vessel collision, An image of a wellhead for information. <p>(2) NTGAC expressed a general interest in whales and whale sharks. Woodside discussed controls protecting whales and whale sharks from an ecological perspective during meetings in which they were raised, and no further feedback or comment was received on these topics,</p> <p>(3) NTGAC requested funding for YMAC’s in-house environmental scientist,</p> <p>(4) NTGAC claimed it has not been consulted about the activity to date, stating it could not provide information on cultural values because the information provided had been too technical and timeframes were not sufficient,</p>	<p>(1) Woodside responded to NTGAC’s requests for further information during face-to-face engagements in which they were raised, and no further information was requested on these topics.</p> <p>(2) Woodside noted NTGAC’s interest in whales and whale sharks.</p> <p>(3) Woodside funded YMAC’s environmental scientist to attend two face-to-face meetings on 15 Aug 2023 (and 16 February 2023) to support consultation. No feedback was received from this activity. Woodside has also offered to financially support provision of independent, third party advice to NTGAC (19 April 23) which has not been taken up.</p> <p>(4) Woodside does not agree with NTGAC’s claim that it has not yet been consulted on the activity, or that information provided has been too technical. Woodside met with NTGAC nominated representatives, at location of NTGAC’s choice on 16 Feb and 15 Aug 2023 for multiple hour sessions where the activity was described face to face by Woodside project representatives, subject matter experts and First Nations relations advisers (see Section 6.5 of the EP for approach). This included specifically developed consultation material developed by First Nations personnel in collaboration with technical experts, maps, pictures and a short video visually communicating the drilling process. During the meeting, NTGAC and YMAC representatives were encourage to control the pace of the engagement and seek clarification. NTGAC and YMAC asked questions about the activity (see point 1) which indicates that material was engaged with. Woodside has also funded YMAC’s in-house environmental scientist to support consultation. Woodside has addressed and responded to NTGAC over 9 months, demonstrating a “reasonable period” of consultation.</p> <p>(5) Separate from consultation under Reg 11A for this activity, Woodside will establish a Consultation Agreement with NTGAC. The Consultation Agreement and General Report/s would be used to frame ongoing consultation to occur as part of Woodside’s commitment to post Reg 11A</p>	<p>(1) Existing controls considered sufficient, as described in Section 7.</p> <p>(2) Woodside updated Section 5.6.1 to reflect NTGAC’s interests and potential cultural values, including whales and whale sharks, and assessed potential impact on these, including controls, in Section 7.</p> <p>(3) Not required.</p> <p>(4) Not required.</p> <p>(5) and (6) Woodside is implementing a program to actively support Traditional Custodians’ capacity for ongoing engagement and consultation on environment plans, (Appendix I). This includes continued engagement regarding NTGAC’s proposed Consultation Framework which will be applied to ongoing consultation, and potential support for their Strategic Plan. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix I.</p>

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<p>(5) NTGAC was developing the first draft of a Consultation Agreement, and General Report. The proposal for the General Report was that it would outline the nature of the activities for each phase of the project and the risks associated with each of the relevant activities. Woodside was awaiting receipt of the initial draft of the General Report.</p> <p>(6) NTGAC was interested in exploring social investment opportunities with Woodside which may support NTGAC's Strategic Plan.</p>	<p>consultation ongoing engagement. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, multiple face to face meetings with appropriate material (pictures, maps, videos) and project attendance allowing opportunity to ask questions and seek further understanding, and agreement to fund NTGAC/YMAC environmental scientist who was also present at the meetings.</p> <p>(6) Woodside is continuing to work with NTGAC regarding social investment opportunities. Woodside has assessed that the Framework for Ongoing Consultation with NTGAC is an effective mechanism for exploring opportunities for alignment with NTGAC's Strategic Plan.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	
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Buurabalayji Thalanyji Aboriginal Corporation (BTAC)
 BTAC is established under the Native Title Act 1993 by the Thalanyji people to represent the Thalanyji people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with BTAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on BTAC's preferred method of consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to BTAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

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- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to BTAC on 1 August 2023.
- Woodside has provided the BTAC with the opportunity to provide feedback over a 5 month period.

Woodside asked BTAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on BTAC's functions, interests or activities.

Summary of consultation provided and responses:

On 20 February 2023, BTAC provided a letter to Woodside specific to consultation on other proposed activities:

- (1) Stating that their interests include archaeological sites identified on nearshore islands including Barrow Island and the Montebello Islands,
 - (2) Stating that they have an enduring connection to sea country,
 - (3) Independent technical expertise to advise on risks to sea country,
 - (4) Expressing desire to be involved in local emergency response capability,
 - (5) Seeking support to work with an anthropological team to define and articulate values on Sea Country.
- On 17 March 2023, Woodside emailed a letter to BTAC agreeing to the requests above.
 - On 19 July 2023, Woodside emailed BTAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that BTAC advised Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult in relation to any Woodside activities.
 - On 26 July 2023, Woodside emailed BTAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
 - On 31 July 2023, Woodside emailed BTAC three letters that committed in writing Woodside's intentions to support cultural mapping of Sea Country values, ethnographic assessment as well as a consent letter for Woodside's application of a licence under Section 91 of the WA Land Administration Act.
 - On 1 August 2023, Woodside emailed BTAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.25, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that BTAC and its members may have within the EMBA, information on how BTAC would like to engage, and requested that BTAC provide information to members as required.

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- (6) On 14 September 2023, BTAC emailed a letter to Woodside regarding a framework agreement with BTAC. The intent of the agreement would be to formalise a co-ordinated, streamlined approach to progressing meaningful ongoing engagement and consultation. The letter included areas the agreed framework could address, and confirmed that the agreed framework would allow BTAC to meaningfully comment on a range of issues including:
 - How/whether EP activities could impact cultural values, interests and customary or organisational activities and concerns and useful ways these could be addressed,
 - The content of EPs prior to submission to NOPSEMA,
 - (7) Appropriate ways for mitigating risk and ensuring ongoing social licence. A further letter was attached outlining a proposed cost recovery mechanism for consultation activities, and BTAC stated that it did not sanction or endorse any consultation occurring without cost recovery.
- (7) On 22 September 2023, Woodside emailed BTAC accepting BTAC's proposed consultation fee structure, the list of activities that Woodside has consulted BTAC on and advising that the draft framework agreement was under internal review.
- (7) On 1 November 2023, BTAC emailed Woodside inviting Woodside to present on Woodside activities at a 1-hour slot in the BTAC Common Law Holders meeting on 27 November.
- (7) On 1 November 2023, Woodside emailed BTAC accepting the offer to present at the Common Law Holders meeting and agreeing to pay costs for the meeting.
- (7) On 27 November 2023, Woodside attended and presented at the BTAC Common Law Holders meeting. The one-hour timeslot did not allow for taking feedback in relation to EPs but the Common Law Holders meeting were made aware that Woodside had been attempting to meet since January, and had agreed to pay for reasonable consultation costs as well as fund the Sea Country mapping but that these offers had not been taken up.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) BTAC stated that their interests include archaeological sites identified on nearshore islands including Barrow Island and the Montebello Islands.</p> <p>(2) BTAC has a cultural obligation to care for the environmental values of Sea Country.</p> <p>(3) Requested Woodside supports BTAC in obtaining technical advice relating to the proposed activity which was sent to BTAC.</p> <p>(4) Expressed desire to be involved in local emergency response capability, potentially via an Indigenous Ranger Program.</p> <p>(5) BTAC has not specifically developed values regarding Sea Country into a format that could be articulated for</p>	<p>(1) The nearshore islands identified by BTAC do not fall within the EMBA and will not be impacted by any of the activities set out in the EP.</p> <p>(2) Woodside assessed BTAC's cultural obligation to care for environmental values of Sea Country to represent potential cultural values.</p> <p>(3) Woodside has offered financial support for technical advice and other support that has not been taken up (e.g., 17 March 23 letter).</p> <p>(4) Woodside will engage in ongoing consultation with BTAC for the purposes of ongoing monitoring, management and emergency response associated with environmental risk (e.g., 17 March letter).</p> <p>(5) Woodside agreed to support the articulation and recording of sea country values. Since Woodside formally offered to support BTAC undertake an ethnographic assessment in July 2023, BTAC has not indicated that it desires to initiate the activity. Completion of an ethnographic assessment is not required to undertake or complete consultation under Reg 11A. Opportunity to undertake this work continues under the proposed Collaboration Agreement (see 6) as part of ongoing engagement.</p>	<p>(1) Not required.</p> <p>(2) Woodside updated Section 5.6.1 to record BTAC's interests and potential cultural values and assessed potential impact on these, including controls, in Section 7.</p> <p>(3) Not required.</p> <p>(4) The Program for Ongoing Engagement with Traditional Custodians (Appendix I) includes commitments to social investment to support Indigenous Ranger programs, and support for Indigenous oil spill response capabilities.</p> <p>(5) Woodside has taken all reasonable steps to identify cultural features and heritage features of Thalanyji people</p>

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<p>consultation. BTAC sought support from Woodside to enable BTAC to define and articulate its values on Sea Country in a manner that could be more clearly understood by the offshore sector, government, and the community.</p> <p>(6) BTAC proposed a Collaboration Agreement as an appropriate mechanism to provide ongoing feedback to Woodside regarding its activities.</p> <p>(7) BTAC does not endorse any consultation without appropriate cost recovery BTAC expressed a desire for ongoing engagement and partnership.</p>	<p>Woodside has been able to develop a robust understanding of Thalanyji Sea Country cultural values and features in absence of this assessment.</p> <p>(6) Separate from consultation under Reg 11A, Woodside will establish a Collaboration Agreement with BTAC. The agreement includes support for recording and articulation of Sea Country values.</p> <p>(7) Woodside assesses that the proposed Collaboration Agreement is an appropriate mechanism for addressing appropriate cost recovery for BTAC. Woodside has already offered BTAC support for technical advice (see 3), and informed BTAC that it would financially support consultation meetings. As described in the summary above, Woodside has afforded sufficient information and reasonable time for BTAC to provide feedback in the course of preparing this EP.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>within the EMBA. This is described in Section 5.6.1. The proposed Collaboration Agreement recorded in Appendix I enables an ethnographic survey to be undertaken at a later date but is not required to discharge Regulation 11A requirements. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (Section 8.7).</p> <p>(6) and (7) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations, this includes continued engagement regarding the Collaboration Agreement that Woodside seeks with BTAC, which could include ongoing support for BTAC to define and articulate values, provision of ongoing feedback and cost recovery. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix I.</p>
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Yinggarda Aboriginal Corporation (YAC)

YAC is established under the Native Title Act 1993 by the Yinggarda people to represent the Yinggarda people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with YAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on YAC's preferred method of consultation. This has resulted in a face-to-face meeting. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 11A consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to YAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to YAC on 1 August 2023.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the YAC with the opportunity to provide feedback over a 5 month period.

Woodside asked YAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on YAC's functions, interests or activities.

Summary of consultation provided and responses:

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- Woodside commenced engagement with KAC in February 2023 in relation to a separate activity, seeking to consult.
- On 26 June 2023, YAC invited Woodside to present at a YAC meeting on 5 July in relation to activities unrelated to this activity.
- **(5)** On 21 June 2023, Gumala Aboriginal Corporation emailed Woodside inviting attendance at a half day YAC Board meeting to discuss other EP matters stating that it may seek further funding for an independent expert(s) to advise the YAC Board about the impact of the proposed activities, if they thought it was required after the presentation.
- On 5 July 2023, Woodside presented to the YAC about several Woodside EPs. At the meeting Woodside:
 - Described the EP framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA’s role as regulator and general contents of EPs,
 - Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023;
 - Described the proposed activity, noting:
 - The types of vessels involved,
 - The planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely,
 - Displayed and spoke to the EMBA for each proposed activity, and the individual worst-case loss of containment scenarios identified,
 - Stated that Woodside wanted to understand how the functions, activities or interests of YAC and the people it represents may be impacted by any of those activities.
 - Woodside specifically asked the following:
 - How could these activities impact your cultural values, interests, and activities – does protecting the environment do enough to protect your cultural values?
 - What are your concerns about the proposed activities and what do you think we should do about them?
 - Is there anything you would like included in the EPs before submission?
 - Is there anyone else Woodside should consult with about the activities?
 - Advised that Woodside will continue to take feedback from YAC for the life of the EP.
 - Provided personal contact details for further feedback. Woodside provided NOPSEMA contact details, should YAC desire to provide feedback directly to the regulator.
- At the 5 July 2023, meeting YAC asked the following questions and provided the following feedback:
 - **(1)** Whether Woodside had undertaken environmental studies and whether these studies were ongoing.
 - **(2)** What environmental monitoring happened after the EPs were approved.
 - **(1)** Woodside responded that numerous environmental studies were undertaken, and they formed part of the EPs, some information about ongoing commitments and research studies were available on Woodside’s website. Woodside noted that it committed to ongoing consultation with YAC and would take feedback if any new information in relation to risks came to light.
 - **(3) (4)** YAC expressed sadness at the potential for environmental impact including plants and animals, including whales.

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<ul style="list-style-type: none"> - Woodside responded that potential impact from unplanned activities was very low and that it had not had a serious unplanned environmental impact in over 30 years. Woodside also responded to specific examples such as vessel collision with migratory species (e.g., whales) and stated that it would comply with regulatory requirements for interaction with marine fauna. Woodside would also adhere to defined observation and exclusion zones and implement adaptive management where required. - (6) YAC expressed interest in a ranger program to assist with environmental management and monitoring. • On 17 July 2023, Woodside emailed YAC a letter summarising the 5 July meeting. • On 19 July 2023, Woodside emailed YAC NOPSEMA’s Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside’s request that YAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. • On 26 July 2023, Woodside emailed YAC Woodside’s planned Program of Ongoing Engagement with Traditional Custodians. • On 1 August 2023, Woodside emailed YAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.26, (including a link to the detailed information sheet on Woodside’s website). The email requested information on the interests that YAC and its members may have within the EMBA, information on how YAC would like to engage, and requested that YAC provide information to members as required. • On 2 August 2023, YAC’s new lawyer emailed Woodside to advise that they had been placed on retainer by YAC to advise on NOPSEMA matters. • (4) On 14 September 2023, Woodside emailed YAC via their lawyer with a proposed consultation framework. • (4) On 14 September 2023, the YAC lawyer confirmed receipt of the consultation framework and advised they would seek direction from the YAC Board. • (7) On 13 October 2023, the YAC lawyer sought to be for his clients including YAC to be indemnified against future litigation stating this was a threshold issue that would block further consultation should the requirement not be met. • (7) On 18 November 2023, Woodside emailed the YAC lawyer stating they were not amenable to this requirement but remain committed to building ongoing relationships and consulting with Yinggarda on all activities for which they are indicated as relevant. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>YAC have not provided feedback, objections, or claims to date in response to the information provided since consultation began in relation to this activity but has provided feedback in relation to activities generally.</p> <p>(1) YAC asked if Woodside had undertaken environmental studies and whether these studies are ongoing.</p> <p>(2) YAC asked if environmental monitoring happens after the EPs are approved.</p> <p>(3) YAC identified concerns over unplanned activities and their potential impact on plants and animals.</p> <p>(4) YAC expressed a general interest in whales. Woodside discussed controls protecting whales from an ecological perspective during meetings in which they were raised, no further feedback or comment was received on these topics.</p> <p>(5) YAC sought funding of an independent expert if they later deemed it necessary but have not since requested this.</p> <p>(6) YAC expressed interest in a ranger program to assist with environmental management and monitoring.</p> <p>(7) YAC stated it requires further funding and a consultation agreement to consider the proposed activity and other activities.</p>	<p>(1) Woodside responded that numerous environmental studies are undertaken, and they form part of the EPs and directed YAC to Woodside’s website.</p> <p>(2) Woodside responded that environmental monitoring is for the life of the EP and Woodside notes that they commit to ongoing consultation with YAC and will take feedback if any new information in relation to any new risks.</p> <p>(3) Woodside responded that potential impact from unplanned activities is very low and that they had not had a serious unplanned environmental impact in over 30 years. Woodside also responded to specific examples such as vessel collision with migratory species (e.g., whales) and stated that it would comply with regulatory requirements for interaction with marine fauna. Woodside would also adhere to defined observation and exclusion zones and implement adaptive management where required.</p> <p>(4) Woodside noted YAC’s interest in whales.</p> <p>(5) Woodside stated it was amenable to funding reasonable costs associated with YAC’s engagement of an independent expert if YAC considers this necessary.</p> <p>(6) Woodside will engage in ongoing consultation with YAC for the purposes of ongoing monitoring, management and emergency response associated with environmental risk.</p> <p>(7) Woodside has agreed to further reasonable costs and a consultation agreement relevant to:</p> <ul style="list-style-type: none"> • Activities for which consultation under Regulation 11A is closed but for which ongoing consultation applies (such as this activity); and • For consultation under future EPs. <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>(1)-(4) Existing controls are considered sufficient, as described in Section 7.</p> <p>(5) Not relevant</p> <p>(6 - 7) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in Regulation 14(9) of the Environment Regulations, this includes continued engagement regarding the Framework Agreement that Woodside seeks with YAC. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix I.</p>
<p>Kariyarra Aboriginal Corporation (Kariyarra AC)</p> <p>Kariyarra is established under the Native Title Act 1993 by Kariyarra people to represent the Kariyarra people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.</p>		

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with KAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on KAC's preferred method of consultation.
- Provided Consultation Information Sheet and Consultation Summary Sheets developed by Traditional Owner staff to KAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, Northwest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to KAC on 1 August 2023.
- Woodside has provided the KAC with the opportunity to provide feedback over a 5 month period.

Woodside advised that KAC can request that particular information provided in the consultation not be published (to align with 11A(2)(4)).

Woodside asked KAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 with ample opportunity for genuine two-way dialogue. KAC has provided feedback in correspondence about the nature of its claims and interests.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on KAC functions, interests or activities.

Summary of consultation provided and responses:

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Woodside commenced engagement with KAC in February 2023 in relation to a separate activity, seeking to consult.

- On 18 July 2023, Woodside emailed KAC NOPSEMA’s Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside’s request that KAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 26 July 2023, Woodside emailed KAC Woodside’s planned Program of Ongoing Engagement with Traditional Custodians.
- On 1 August 2023, Woodside emailed KAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.27, (including a link to the detailed information sheet on Woodside’s website). The email requested information on the interests that KAC and its members may have within the EMBA, information on how KAC would like to engage, and requested that KAC provide information to members as required.
- On 31 August 2023, KAC emailed Woodside advising of new legal representation.
- On 31 August 2023, KAC’s legal representation emailed Woodside requesting copies of documents previously provided to KAC and seeking confirmation that Woodside would cover KAC’s costs as well as legal costs and other specialist advice.
- On 10 September 2023, Woodside emailed KAC’s legal representative about nine environment plans including this activity. The email also included NOPSEMA’s Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information.
- On 13 September 2023, Woodside emailed KAC’s legal representative confirming in principle agreement to cost recovery, but that an approximate, reasonable quote is required must be provided for approval.
- (1) (2)** On 28 September 2023, KAC’s legal representative provided a single figure non-itemised quote. The email attached a letter dated 22 September 2023 entitled “Kariyarra and Woodside – Scarborough Project Consultation Requirements” and set out proposed negotiations for a consultation protocol and co-management agreement. The letter did not refer to this activity but referred to values and interests in Sea Country including traditional fishing and gathering rights in the ocean and presence of mythic snakes.
- Between 20 -23 October 2023, several emails were exchanged in relation to costs and Woodside reiterated the need for a reasonable quote.
- (1)** On 26 October 2023, the KAC legal representative emailed Woodside in relation to a separate activity stating Woodside’s proposed cost structure was inadequate and would confer with EDO the Traditional Owners that have taken court action.
- (1)** On 14 November 2023, KAC legal representative emailed Woodside in relation to a separate activity stating that they had taken their concerns to the EDO.
- (1)** On 22 November, Woodside emailed KAC reiterating a preparedness to fund consultation for consultation meetings and development of a consultation protocol for ongoing consultation on EPs where consultation for purposes of developing an environment plan is closed, and for consultation on development of EPs for new activities.
- (1)** On 23 November 2023, KAC legal representative emailed Woodside agreeing to Woodside’s proposal in the email of 22 November 2023, requesting a draft protocol and suggesting several dates for a meeting between KAC and Woodside.
- (1)** On 23 November 2023, KAC legal representative emailed Woodside seeking costs already incurred by his services to KAC.
- (1)** On 29 November 2023, Woodside telephoned KAC, confirming a meeting on 5 December 2023 in Port Hedland with KAC, noting that Woodside will not pay legal costs that had been incurred prior to the meeting date.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>(1) KAC has not provided any feedback objections or claims in relation to this activity since July 2023. KAC have now settled a date to meet with Woodside on 5 December 2023. A framework agreement will be discussed and further consultation on this EP.</p> <p>(2) In relation to activities related to a separate project, KAC have advised on values and interests in sea country including traditional fishing and gathering rights in the ocean and presence of mythic snakes.</p>	<p>(1) Woodside offer of funding for consultation and development of a consultation protocol for ongoing consultation has been accepted. Meeting with KAC on 5 December 2023 will progress agreement and ongoing consultation on this activity.</p> <p>(2) Woodside has noted the Kariyarra values and interests in sea country in Section 5.6.1.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>(1) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in Regulation 14(9) of the Environment Regulations, this includes continued engagement regarding the Consultation protocol with KAC.</p> <p>(2) Woodside has noted the Kariyarra values and interests in sea country in Section 5.6.1.</p>
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Wirrawandi Aboriginal Corporation (WAC)
WAC is established under the Native Title Act 1993 by the Mardudhunera and Yaburara people to represent the Mardudhunera and Yaburara people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with WAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on WAC’s preferred method of consultation. This resulted in a face-to-face meeting being coordinated at a location of WAC’s choosing. This meeting included information that was readily accessible and appropriate.
- Provided Consultation Information Sheets and Consultation Summary Sheets to WAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Set out in detail what was being sought.
- Provided NOPSEMA’s Brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that WAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4))

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.

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- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to WAC on 1 August 2023.
- Woodside has provided the WAC with the opportunity to provide feedback over a 5 month period.

Woodside asked WAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. WAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on WAC's functions, interests or activities.

Summary of consultation provided and responses:

- From January 2023, Woodside had engaged with WAC on EP activities, supporting consultation meetings on activities unrelated to this activity on 23 March 2023.
- **(1)** On 23 March 2023, Woodside presented to a meeting of the WAC Board and Elders in Perth on activities separate to this activity but with feedback relevant to this activity. Woodside:
 - Described the EP framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of EP,
 - Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023,
 - Described the types of vessels involved,
 - Described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely,
 - Displayed and spoke to the EMBA for each proposed drilling activity, and the individual worst-case loss of containment scenarios identified,
 - Stated that Woodside wanted to understand how the functions, activities or interests of WAC PBC and the people it represents may be impacted by any of those activities,
 - Specifically asked the following:
 - How could these activities impact your cultural values, interests and activities - does protecting the environment do enough to protect your cultural values?
 - What are your concerns about the proposed activities and what do you think we should do about them?

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- Is there anything you would like included in the EPs before submission?
- Is there anyone else Woodside should consult with about the activities?
- Advised that Woodside will continue to take feedback from WAC for the life of each EP.
- Provided personal contact details for further feedback. Woodside provided NOPSEMA contact details, should WAC desire to provide feedback directly to the regulator.
- (1)** At the 23 March meeting:
 - WAC asked how the state of the environment post decommissioning is assessed.
 - Woodside responded that post-decommissioning surveys are done to assess this. This is reflected in Environment Plans which are publicly available on the NOPSEMA website.
 - WAC asked whether results from these ongoing surveys are publicly available.
 - Woodside responded that evidence of monitoring over time is included in the public EPs.
 - WAC asked how the EMBA influences consultation.
 - Woodside responded that the EMBA has always been understood but it is now being used to identify where there may be other interests in the activity.
- **(2)** WAC asked about potential impact of noise on whale communication
- WAC stated that this kind of information sharing is important, and that Woodside's time was appreciated and whether this type of information is broadly available to the community,
 - Woodside responded that there are a number of open community sessions available in the region where it could be discussed.
- WAC indicated that since they are engaging with a number of energy industry operators concurrently, they will consider the information provided and discuss internally before any further response to Woodside.
- On 18 July 2023, Woodside emailed WAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that WAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 26 July 2023, Woodside emailed WAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 1 August 2023, Woodside emailed WAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.28, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that WAC and its members may have within the EMBA, information on how WAC would like to engage, and requested that WAC provide information to members as required.
- On 3 August 2023, WAC emailed Woodside requesting a map of relevant Commonwealth and State EMBAs.
- On 10 August 2023, Woodside emailed WAC providing a list (as requested by WAC) of current and pending EPs.
- On 10 August 2023, WAC emailed Woodside with thanks for the information and with a query about EMBAs.
- On 15 August 2023, Woodside emailed WAC providing an explanation of the query in relation to EMBAs and EMBA development.
- On 15 August 2023, WAC emailed Woodside with thanks for the clarification and noting they would provide a formal response shortly.

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- (3) On 31 August 2023, WAC emailed a letter to Woodside proposing a framework agreement to provide a streamlined, formalised approach to consultation between WAC and Woodside. This included a list of activities that WAC is to be consulted on including this one.
- (3) On 11 September 2023, WAC emailed Woodside with a copy of the letter of 31 August, advising that WAC does not object to Woodside progressing environment plans for the activities outlined on the proviso that Woodside and WAC enter into a framework agreement to provide for ongoing meaningful consultation with WAC and YM members in relation to activities the subject of EPs, as outlined in the attached letter on terms suitable to both parties within a reasonable period (nominally within the next 2-3 months).
- (3) On 12 September 2023, Woodside emailed WAC confirming receipt of the email of 11 September.
- On 28 September 2023, Woodside emailed WAC informing them who their focal point is.
- (3) On 3 October 2023, WAC emailed Woodside requesting a catch up.
- On 3 October 2023, Woodside emailed WAC suggesting dates during October to meet up.
- On 3 October 2023, WAC emailed Woodside confirming availability on suggested dates.
- On 3 October 2023, Woodside emailed WAC confirming dates and meeting location.
- On 20 October 2023, Woodside and WAC met in Perth. The meeting was held with the new CEO and Chairperson to discuss current EPs and how parties intend to support each other through the process. Confirmed WAC's preferred EP consultation process and discussed recent correspondence between previous CEO and Woodside. WAC confirmed they are going to address all open EPs as a matter of priority. Noted the WAC AGM is taking place in approximately 10 days.

Quarterly Heritage Meetings:

- Woodside convenes a quarterly meeting of Traditional Custodian representatives from the Representative Aboriginal Corporations involved in historical native title claims over the Burrup Peninsula, including WAC. Individual attendees are nominated by their representative Aboriginal Corporations. These meetings are summarised separately in this table.
- Copies of slides are made available to representative Aboriginal Corporations for the general awareness of members who were not able to attend individual meetings.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) During face-to-face engagements related to other activities, the WAC Board requested further information on topics related to this proposed activity which were responded to during the meeting:</p> <ul style="list-style-type: none"> • WAC asked how the state of the environment post decommissioning is assessed, • WAC asked whether results from these ongoing surveys are publicly available. 	<p>(1) Woodside responded to WAC's requests for further information during face-to-face engagements, and no further information was requested on these topics.</p> <p>(2) Woodside assessed WAC's interest in whales to represent potential cultural values.</p> <p>(3) Woodside has confirmed and accepts that WAC is seeking to establish a framework agreement for the purposes of ongoing consultation with Woodside. Woodside notes that WAC does not object to Woodside progressing environment plans for activities outlined on this basis. Separate from consultation under Reg 11A, Woodside will establish a</p>	<p>(1) Existing controls considered sufficient, as described in Section 7, specifically 7.7.3 which assesses and adopts controls to minimise impacts to whale communication from noise and 7.8.2 which assesses and adopts controls to reduce the likelihood and consequence of a spill.</p> <p>(2) Woodside updated Section 5.6.1 to record WAC's interests and potential cultural values, including whales and</p>

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<ul style="list-style-type: none"> • WAC asked how the EMBA influences consultation. • WAC asked about potential impact of noise on whale communication. • WAC stated that this kind of information sharing is important, and that Woodside's time was appreciated and whether this type of information is broadly available to the community, • WAC indicated that since they are engaging with a number of energy industry operators concurrently, they will consider the information provided and discuss internally before any further response to Woodside. <p>(2) WAC expressed a general interest in whales, in relation to other activities presented at the meeting. Woodside discussed controls protecting whales from an ecological perspective during meetings in which they were raised, no further feedback or comment was received on these topics.</p> <p>(3) WAC expressed that it does not object to Woodside progressing this activity on the provision that Woodside and WAC enter into a framework agreement to provide for ongoing meaningful consultation a desire for ongoing engagement and partnership through a Framework Agreement.</p>	<p>framework agreement with WAC. The agreement will be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, a face-to-face meeting with appropriate material (pictures, maps, video) and project attendance allowing opportunity to ask questions and seek further understanding.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>assessed potential impact on these, including controls, in Section 7.</p> <p>(3) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations and continue to progress with establishing a framework agreement as part of Woodside's Program of Ongoing Engagement with Traditional Custodians (Appendix I).</p>
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Robe River Kuruma Aboriginal Corporation (RRKAC)

RRKAC is established under the *Native Title Act 1993* by the Robe River Kuruma people to represent the Robe River Kuruma people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with RRKAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on RRKAC's preferred method of consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to RRKAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that RRKAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4)).

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to RRKAC on 1 August 2023.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the RRKAC with the opportunity to provide feedback over a 5 month period.

Woodside asked RRKAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. RRKAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on RRKAC's functions, interests or activities.

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Summary of consultation provided and responses:

- On 9 March 2023, RRKAC emailed Woodside (and copied in CEO of Wirrawandi Aboriginal Corporation (WAC)):
 - RRKAC advised it has discussed a proposed activity with the Robe River Kuruma Heritage Advisory Committee and they have recommended that the interests of Robe River Kuruma people are best served through the joint Heritage Advisory Committee that is required under Yaburara Mardudhunera and Kuruma Marthudunera Indigenous Agreement.
 - RRKAC also suggested that WAC is required to facilitate this Committee and noted there is an emerging need to deal with other proponent matters, so there is an opportunity to link the engagement from a meeting efficiency perspective.
 - Between 15-17 March 2023, Woodside exchanged email correspondence with RRKAC (and WAC) in relation to establishing a meeting with the joint Heritage Advisory Committee. The meeting was confirmed for 31 March 2023.
- **(1)** On 31 March 2023, Woodside met with the Robe River Kuruma and Wirrawandi Joint Heritage Advisory Committee (HAC) in Karratha:
 - Woodside described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Woodside encouraged HAC to raise anything which they felt was missing in the information provided during the meeting, or any issues or concerns.
 - Woodside displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Woodside described other decommissioning activities.
 - HAC asked what happens to steel when it is removed.
 - Woodside responded that is recycled where possible.
 - HAC asked if the pipelines are being removed.
 - Woodside responded that they would be.
 - HAC asked raised that mangroves are an environmental concern in event of a spill.
 - Woodside responded that mangroves are identified as high sensitivity in existing plans for spill response.
 - HAC asked whether Woodside are talking to other people with regards to Eps.
 - Woodside advised that they were talking to every Aboriginal corporation under Native Title and ILUA's from Port Hedland to Shark Bay for these activities.
 - Woodside asked whether there were any further questions or feedback on decommissioning, none were received.
 - Woodside described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
 - WAC asked what response Woodside would implement for a diesel spill. Woodside responded that response arrangements are checked by NOPSEMA.
 - Woodside provided personal contact details for further feedback.
 - Woodside provided NOPSEMA contact details, should WAC desire to provide feedback directly to the regulator.
- On 3 May 2023, Woodside contacted RRKAC by mail to summarise the information presented at the meeting on 31 March 2023 and the actions for Woodside to follow up:

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<ul style="list-style-type: none"> - Woodside thanked HAC for the meeting and their careful consideration of the matters and feedback provided. - Woodside acknowledged that the RRKAC have interests in the EMBA and noted that we want to ensure impacts are as minimal as reasonably practicable. - A high-level overview of presented topics was provided. - Woodside provided responses to questions noted from the meeting that were not related to the proposed activity. - Woodside notified that the feedback and the letter will be included in EPs that will be submitted to NOPSEMA. - (2) and (3) Woodside noted that during the meeting the joint HAC of RRKAC and WAC expressed a desire for ongoing engagement and partnership and stated that Woodside looks forward to meeting again so that actions to support RRKAC (and WAC) can be put in place • On 18 July 2023, Woodside emailed RRKAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that WAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. • On 26 July 2023, Woodside emailed RRKAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians. • On 1 August 2023, Woodside emailed RRKAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.29, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that RRKAC and its members may have within the EMBA, information on how RRKAC would like to engage, and requested that RRKAC provide information to members as required. • On 11 August 2023, RRKAC emailed Woodside in response to another matter and in addition requesting ongoing consultation and training opportunities for rangers to prepare rangers for caring for sea and coastal country. • On 14 August 2023, Woodside emailed RRKAC thanking them for their response and requesting to meet to discuss training opportunities for rangers. • On 14 August RRKAC emailed Woodside agreeing to a meeting and indicating they would arrange a suitable time for a discussion. • (2) On 15 September 2023, RRKAC emailed Woodside advising they have noted Woodside's plans, and that they aren't resourced to adequately respond, and would require Woodside to fund additional resources. • (2) On 18 September 2023, Woodside sent two emails to RRKAC clarifying that Woodside can provide funding to support consultation activities and requested RRKAC provide quotes and attached a Proposed Program of Ongoing Engagement with Traditional Custodians. An email was also sent from our SAP system a vendor onboarding process. No response has been received. • On 14 November 2023, Woodside emailed RRKAC requesting to meet to discuss what support RRKAC may need to engage fully in consultation. Woodside offered to work around RRKAC's schedule, acknowledging it was AGM season. • On 14 November RRKAC emailed Woodside noting they were finalising team appointments and would be in touch with the name of a team member. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>(1) During face-to-face engagement related to other related and similar, RRKAC/HAC requested further information:</p> <ul style="list-style-type: none"> HAC asked what happens to steel when it is removed. HAC asked if the pipelines are being removed. HAC asked raised that mangroves are an environmental concern in event of a spill. HAC asked whether Woodside are talking to other people with regards to EPs. <p>(2) RRKAC noted that they are insufficiently resourced to fully engage and respond regarding EPs.</p> <p>(3) RRKAC/HAC expressed a desire for ongoing engagement and partnership.</p>	<p>(1) Woodside responded to RRKAC/HAC's requests for further information during face-to-face engagements, and no further information was requested on these topics.</p> <p>(2) Woodside supports ongoing engagement and have responded to RRKACs advice about the limitations on their resources. Woodside has offered to support RRKAC in correspondence sent on May 3, 2023, and September 2023, however these offers have not been taken up. As outlined in the consultation summary above, sufficient information and a reasonable period have been provided to demonstrate that consultation for the purpose of Reg 11A is complete. Any further engagement with and support offered to RRKAC will be for the purpose of ongoing engagement.</p> <p>(3) Woodside has assessed the Program of Ongoing Engagement with Traditional Custodians will support ongoing consultation with RRKAC and address appropriate support for resourcing, separate from consultation under Reg 11A, Sufficient information to allow informed assessment has already been provided, including Consultation Information Sheets and a Summary Information Sheet developed by Indigenous staff members.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>(1) Existing controls considered sufficient, as described in Section 7.</p> <p>(2) & (3) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations and continue to progress with establishing a Framework Agreement as part of Woodside's Program of Ongoing Engagement with Traditional Custodians (Appendix I). This includes addressing RRKAC's resourcing issue for ongoing consultation via a Framework Agreement.</p>
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Ngarluma Aboriginal Corporation (NAC)

NAC is established under the Native Title Act 1993 by the Ngarluma people to represent the Ngarluma people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with NAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP.

Sufficient Information:

- Specifically: Woodside sought direction on NAC's preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of NAC's choosing, with NAC nominated representatives. This meeting included information that was readily accessible and appropriate.
- Provided Consultation Information Sheets and Consultation Summary Sheets to NAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.

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- Confirmed the purpose of consultation and set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that NAC can request that particular information provided in the consultation not be published (to align with 11A(2)(4)).

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to NAC on 1 August 2023.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the NAC with the opportunity to provide feedback over a 5 month period.

Woodside asked NAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since February 2023 and a genuine two-way dialogue has occurred via a meeting and written exchanges to further understand the environment in which the activity will take place. NAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NAC's functions, interests or activities.

Summary of consultation provided and responses:

- **(3)** On 20 April 2023, NAC emailed Woodside acknowledging receipt of the materials in relation to another activity and asked questions regarding impacts to the marine environment and hydrocarbon spill emergency response procedures.
- **(3)** On 26 April 2023, Woodside emailed NAC a response to NAC's questions raised on 20 April regarding impacts to the marine environment and emergency response procedures.
- On 17 May 2023, Woodside presented to the NAC Board of Directors in Karratha. Woodside:

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- Described the EP framework, referring to the *Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations*, NOPSEMA's role as Regulator and general contents of EPs.
- Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which would be open for consultation in 2023.
- Provided an overview of the broader EP activities and described decommissioning activities.
- Described the types of vessels involved.
- Described the planned impacts and respective controls of the above activities including the presence of vessels, seabed disturbance, underwater noise, discharge from vessels, emissions to air and external lighting.
- Described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks were not expected to occur and were unlikely.
- Woodside introduced the regulations we need to comply with and the role of NOPSEMA. Explained that some activities could impact Ngarluma country in the highly unlikely event of an oil spill, and some activities under other EPs (not PLA08) could have a more direct impact.
- Displayed and spoke to the EMBA for each proposed activity, and the individual worst-case loss of containment scenarios identified.
- Stated that Woodside wanted to understand how the functions, activities or interests of NAC and the people it represented might be impacted by any of the activities.
- Specifically asked the following:
 - How could the activities impact NAC's cultural values, interests, and activities - did protecting the environment do enough to protect NAC's cultural values?
 - What were NAC's concerns about the proposed activities and what did NAC think Woodside should do about them?
 - Was there anything NAC wanted included in the EPs before submission?
 - Was there anyone else Woodside should consult with about the activities?
- Advised that Woodside would continue to take feedback from NAC for the life of the EP.
- Provided personal contact details for further feedback. Woodside provided NOPSEMA contact details, should NAC desire to provide feedback directly to the Regulator.
- Woodside asked if there was any further feedback or questions about the activity, or questions on the environmental risks and impacts; none were received. Woodside noted that any questions or considerations could be directed through Woodside's Corporate Affairs Karratha team and the Quarterly Heritage Meetings which NAC has a standing invite to. Woodside noted this was also an opportunity to discuss job opportunities and other matters.
- Woodside left hard copies of Information Sheets and Plain Language Summaries for each discussed activity with NAC attendees.
- On 18 July 2023, Woodside emailed NAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that NAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. No response was received to this email.
- On 26 July 2023, Woodside emailed NAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 1 August 2023, Woodside emailed NAC the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.30, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that NAC and its members may have within the EMBA, information on how NAC would like to engage, and requested that NAC provide information to members as required.

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- **(1)** On 11 August 2023, Woodside held a Teams meeting with NAC energy adviser and the following were noted:
 - Identify EPs for prioritisation.
 - NAC will put together a working group.
 - Bi-monthly consultations.
 - NAC has capacity issues and requires time to deal with matters.
- On 16 August 2023, Woodside emailed NAC requesting to re-establish regular monthly meetings with the Karratha-based Woodside contact.
- **(2)** On 18 September 2023, NAC emailed Woodside proposing:
 - Establishment of Joint Working Group.
 - Woodside to provide draft agreement.
 - Working group meeting commence in October with monthly meetings.
 - Noting arrangements would cover future scope of consultations with NAC.
- On 28 September 2023, a NAC representative emailed Woodside requesting a phone discussion about consultations with NAC.
- **(2)** On 28 September 2023, Woodside had a phone discussion with a NAC representative who was following up on Woodside consultation requests and wished to progress a consultation meeting with the NAC Working Group in October. The representative requested Woodside:
 - Proposed date/s to meet.
 - Confirmed Woodside would cover cost.
 - Provided any relevant information prior to the meeting.
 - Advised on which EPs it would like to consult with NAC.

Woodside agreed to follow up on the above and looked forward to meeting with the Working Group in October.
- On 10 October 2023, Woodside emailed NAC in response to NAC's email of 18 September 2023, in principle supporting NAC's proposal for ongoing consultation through a Working Group. Woodside requested meeting dates and asked NAC if it would prefer that Woodside provided a first draft of the agreement.
- On 19 October 2023, Woodside emailed NAC following up on the 1 October 2023 email.
- **(2)** On 19 October 2023, NAC emailed Woodside advising it would provide a draft engagement letter soon. NAC also asked if there were any urgent matters pending.
- On 2 November 2023, Woodside emailed NAC outlining top priorities and listed EPs for consultation including this EP and asked for feedback from NAC.
- On 3 November 2023, Woodside emailed NAC with a future EP priority list unrelated to this EP. Woodside also asked NAC for their availability over the following two weeks.
- **(2)** On 3 November 2023, NAC emailed Woodside asking how long it would take to cover the list of EPs in a meeting. NAC also informed Woodside it would send through an engagement letter that day.
- **(2)** On 3 November 2023, NAC emailed Woodside a draft engagement protocol letter and stated it looked forward to closing out this matter and scheduling a meeting.

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<p><u>Quarterly Heritage Meetings:</u></p> <ul style="list-style-type: none"> Woodside convenes a quarterly meeting of Traditional Custodian representatives from the Representative Aboriginal Corporations involved in historical native title claims over the Burrup Peninsula, including NAC. Individual attendees are nominated by their representative Aboriginal Corporations. These meetings are summarised separately in this table. NAC did not nominate attendees to quarterly meetings in 2021 or the first half of 2022 but were provided with copies of the slides used. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) During face-to-face engagements on activities similar to this activity and others, NAC were asked if it had any questions or feedback on the activities, NAC mentioned the following:</p> <ul style="list-style-type: none"> How long the equipment being decommissioned had been there. Whether the infrastructure could be left to attract fish. <p>(2) NAC proposed establishing a Joint Working Group to engage in meetings with Woodside for ongoing consultation. NAC noted it had capacity issues and required resourcing to cover costs of meeting.</p> <p>(3) NAC raised questions by email on 20 April regarding impacts to the marine environment and hydrocarbon emergency response procedures, these were addressed by Woodside on 26 April.</p>	<p>(1) No information has been requested in relation to this activity.</p> <p>(2) Separate from consultation under Reg 11A, Woodside will establish an agreement with NAC to work with the NAC Working Group. The agreement and Working Group would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, a face-to-face meeting with appropriate material (pictures, maps, video) and project attendance allowing opportunity to ask questions and seek further understanding.</p> <p>(3) Woodside responded to NAC’s questions regarding impacts to the marine environment and hydrocarbon spill emergency response procedures on 26 April 2023.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>(1) Not required.</p> <p>(2) & (3) As identified in Section 8.9 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations and continue to progress with establishing a framework agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix I).</p>
<p>Yindjibarndi Aboriginal Corporation (AC)</p> <p>Yindjibarndi AC is established under the <i>Native Title Act 1993</i> by the Yindjibarndi people to represent the Yindjibarndi people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.</p>		

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Yindjibarndi AC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on Yindjibarndi AC's preferred method of consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to Yindjibarndi AC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to Yindjibarndi AC on 2 August 2023.
- Woodside has provided the Yindjibarndi AC with the opportunity to provide feedback over a 5 month period.

Woodside asked Yindjibarndi AC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on Yindjibarndi AC's functions, interests or activities.

Summary of consultation provided and responses:

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<ul style="list-style-type: none"> • (1) On 26 February 2023, in relation to other activities Yindjibarndi AC advised that it would not be providing any comment on offshore activities as “Yindjibarndi respect the traditional owners whose land and sea lies adjacent to, and within the precinct of, the projects, and will leave any comment and advice to be provided by them”. • (1) On 6 July and 7 July 2023, Yindjibarndi AC confirmed through two telephone calls that Yindjibarndi did not comment on coastal activities and would leave comments to coastal Native Title Holders. • On 18 July 2023, Woodside emailed Yindjibarndi AC NOPSEMA’s Consultation Guideline, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also requested that Yindjibarndi AC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. • On 26 July 2023, Woodside emailed Yindjibarndi AC Woodside’s Program of Ongoing Engagement with Traditional Custodians. • (2) On 1 August 2023, in response to the email of 26 July 2023 regarding Woodside’s Program of Ongoing Engagement with Traditional Custodians, Yindjibarndi AC stated consultation for oil and gas activities be directed to Ngarluma Yindjibarndi Foundation Ltd (NYFL). • On 2 August 2023, Woodside emailed Yindjibarndi AC (via NYFL) the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.31), (including a link to the detailed information sheet on Woodside’s website). The email requested information on the interests that Yindjibarndi AC and its members may have within the EMBA, information on how Yindjibarndi AC would like to engage, and requested that Yindjibarndi AC provide information to members as required. • <i>Refer to NYFL consultation record from 11 August 2023 below.</i> • Woodside will continue to pursue an ongoing two-way relationship with Yindjibarndi AC under the Proposed Program of Ongoing Engagement with Traditional Custodians. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) Yindjibarndi AC stated it would not be providing comment on offshore activities and that it would prefer that traditional owner groups with land and sea adjacent to and within the precinct of the projects provided comment.</p> <p>(2) Yindjibarndi AC instructed Woodside that it will be represented by NYFL in ongoing discussion about EP’s.</p>	<p>(1) Woodside agrees and respects Yindjibarndi AC’s position that Traditional Owners whose land and sea are adjacent to or within the precinct of the projects should be able to provide comment.</p> <p>(2) Woodside will engage with NYFL on behalf of Yindjibarndi AC for ongoing consultation related to this activity, separate from consultation under Reg 11A.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>(2) Future correspondence will be sent through NYFL. Although consultation for the purpose of Reg 11A is complete, Woodside will continue to engage with Yindjibarndi AC through ongoing engagement and continue to progress with establishing a framework agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix I).</p>
<p>Self-identified Traditional Owner entity</p>		

Ngarluma Yindjibarndi Foundation Ltd (NYFL)

NYFL was created to act as Trustee for the Trust under the Northwest Shelf Agreement 1998 struck between the Ngarluma and Yindjibarndi registered native title claimants, the NWS JVs and Woodside, prior to the resolution of the Ngarluma and Yindjibarndi native title claim. Its purpose is to carry on the business of enterprise development, investment and social welfare.

In 1999 the Ngarluma and Yindjibarndi native title claim was settled with the Federal Court appointing, at the request of the common law native title holders, the Ngarluma Aboriginal Corporation (NAC) as PBC to represent the communal interests of the Ngarluma people and the Yindjibarndi Aboriginal Corporation (YAC) as PBC to represent the communal interests of the Yindjibarndi people. Woodside consulted both NAC and YAC as relevant persons in the course of preparing this EP.

NYFL self-identified and has advised it is relevant for this EP.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with MAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:

Sufficient Information:

- Woodside sought direction on NYFL's preferred method of consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to NYFL. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".

Reasonable Period:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Updated Consultation Information Sheet and Summary Information Sheet provided to NYFL on 1 August 2023.
- Woodside has provided the NYFL with the opportunity to provide feedback over a 5 month period.

Woodside asked NYFL if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

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Woodside has provided a reasonable opportunity for input since July 2023 and a genuine opportunity has been provided to further understand the environment in which the activity will take place.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NYFL's functions, interests or activities.

Summary of information provided and record of consultation:

- Between October 2022-July 2023, Woodside communicated with NYFL about other activities unrelated to this activity and about processes for consultation.
- On 9 May 2022, Woodside emailed the Consultation Information Sheet to NYFL (Record of Consultation, reference 1.32)
- **(3)** On 8 June 2023, Woodside reconfirmed previous offers to meet with NYFL in relation to other activities unrelated to this EP for the purpose face to face consultation. Explained that these presentations have been well received from groups. Explained also that the summary information sheets provided were developed by Indigenous representatives for a Traditional Owner audience. Requested that if face to face consultation was not preferred by NYFL, whether they could provide some direction as to alternatives. Woodside reiterated they cover consultation costs to and can meet in Roebourne, assuming that is preferred.
- **(2)** On 28 June 2023, Woodside emailed NYFL confirming a consultation date of 20 July and requesting NYFL send through a quote for costs.
- **(2)** On 28 June 2023, NYFL responded saying they would hold off on committing to a date while they had a change to digest the outcomes of the NOPSEMA Summit of 22 June 2023.
- **(2)** On 29 June 2023, NYFL emailed Woodside stating that they were waiting to agree to national framework for consultation between industry and First Nations to be resolved before they consult on Environment Plans. This email was referring to the NOPSEMA Summit.
- **(2)** On 10 July 2023, Woodside emailed NYFL seeking clarity in relation to their request. Woodside stated they understood the outcomes of the NOPSEMA Summit that were recorded by the facilitator, were communicated to all participants as:
 - It was agreed that:
 - There is a need for a National Summit of Indigenous Groups and Traditional Owners to consult together and agree what they require and what their collective and individual concerns may be;
 - a. Government (DISR) will assist by mapping and compiling a list of all traditional owner groups that should be invited to this Summit,
 - b. Kimberley Land Council and other PCBs will form a Steering Committee to draft the agenda for this Summit,
 - c. APPEA will seek membership approval to facilitate by funding this Summit, and
 - d. The Summit will be independently facilitated.
 - APPEA to further consult with their members in order to get some agreement on priorities and next steps for Industry;
 - After the National Summit of Indigenous Groups, the first of a number of meetings will be held between a smaller representative Traditional Owners group and a smaller representative Industry group, the latter to be coordinated through APPEA; and

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- There will be ongoing parallel consultations in relation to current EPs, which will continue in accordance with what is required by Reg 11(A)(1)(d) of the OPGGSA Environment Regulations.
 - Woodside stated it is committed to supporting the National Summit of Traditional Owners and is committed to industry and Traditional Owners working together to agree consultation frameworks. Woodside noted, however, this will take time and necessarily must occur in parallel to ongoing consultation, with operators obliged to consult pursuant to Reg 11(A). Woodside also stated they were committing to a program of ongoing consultation for the life of the EP that would be happy to discuss that with NYFL.
- **(2)** On 10 July 2023, NYFL stated it did not agree with the facilitators record of the NOPSEMA Summit and reiterated it looked forward to developing the negotiation framework at the industry funded First Nations Sea Country Summit in November 2023.
 - On 18 July 2023, Woodside emailed NYFL NOPSEMA's Consultation Guideline, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also requested that NYFL advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
 - On 26 July 2023, Woodside emailed NYFL Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
 - On 26 July 2023, NYFL emailed Woodside in response to Woodside's planned Program of Ongoing Engagement with Traditional Custodians, including requesting resourcing to support consultation.
 - On 1 August 2023, Woodside emailed NYFL the updated Consultation Information Sheet and Summary Information Sheet (Record of Consultation, reference 3.32, (including a link to the detailed information sheet on Woodside's website). The email requested information on the interests that NYFL and its members may have within the EMBA, information on how NYFL would like to engage, and requested that NYFL provide information to members as required.
 - **(1)** On 1 August 2023, NYFL emailed Woodside stating it was a relevant person for this activity and seeking increased resourcing, time and support, noting they looked forward to progressing this with Woodside.
 - On 11 August 2023 YAC/NYFL emailed Woodside in response to another matter noting that YAC/NYFL look forward to progressing discussion with Woodside on the proposed program of consultation. A letter attached with the email set out, among other things, YAC/NYFL views on consultation, method of communication and funding for participation for YAC/NYFL's consultation.
 - On 15 August 2023, Woodside emailed YAC through the NYFL thanking them for their correspondence and requesting availability to meet.
 - Between 18 August 2023 and 28 August, emails were exchanged between Woodside and NYFL confirming details of an upcoming meeting, including an agenda for discussion.
 - **(3)** On 30 August 2023, Woodside and NYFL met to discuss consultation support, NYFL requested the funding of three NYFL positions. NYFL stated one month consultation timeframes were not acceptable. Consultation frameworks were not discussed.
 - **(3)** On 27 October 2023, NYFL emailed Woodside NYFL's position statement EPs regarding industry consultation and seeking an update from Woodside "a framework for consultation". (At this stage Woodside had understood that NYFL would not enter a framework until this had been settled by the First Nations Sea Country Summit in November 2023)
 - **(3)** 3 November 2023, Woodside emailed NYFL, stating that they would revert shortly and were also happy to meet to discuss short term solutions as suggested by NYFL.
 - **(3)** On 7 November 2023, Woodside emailed NYFL stating it understood that NYFL did not want to progress the proposal until after the Summit taking place in November, and advising Woodside was available from the 20th of November 2023 to meet.
 - NYFL is also consulted through its membership on the Karratha Community Liaison Group (KCLG) and the Quarterly Heritage Group

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Woodside will continue to pursue an ongoing two-way relationship with NYFL under the Proposed Program of Ongoing Engagement with Traditional Custodians.		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) NYFL self-identified and advised Woodside it was a relevant person for this activity.</p> <p>(2) NYFL advised it wished to pause consultation until after the First Nations Sea Country summit is held and a framework for consultation developed. Woodside understands that the First Nations Sea Country Summit was scheduled for the end of November 2023.</p> <p>(3) NYFL requested resourcing to support participation in consultation. This will be addressed as part of ongoing engagement and consultation.</p>	<p>(1) Woodside has consulted with NYFL under regulation 11A of the OPGGS.</p> <p>(2) Woodside disagrees that an outcome of the 22 June 2023, was to pause consultation until a national framework had been progressed at the First Nations Sea Country Summit in November.</p> <p>(3) Woodside will progress the development of a consultation framework for new activities and for ongoing consultation for activities for which consultation under regulation 11A has closed and discuss resourcing under Woodside’s Program for Ongoing Engagement.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7).</p>	<p>(1) Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on NYFL’s functions, interests or activities.</p> <p>(2) Not relevant.</p> <p>(3) Woodside will continue to engage with NYFL through ongoing engagement and continue to progress with establishing a framework agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix I).</p>
Native Title Representative Bodies		
<p>Yamatji Marlpa Aboriginal Corporation (YMAC)</p> <p>YMAC is the Native Title Representative Body for the Yamatji and Pilbara regions of Western Australia. As such, they are not a Prescribed or Registered Native Title Body Corporate but exist to assist native title claimants and holders.</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with YMAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.5 of the EP. Specifically:</p> <p>Sufficient information:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since May 2022. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Provided Consultation Information Sheet and Consultation Summary Sheets to YMAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format. 		

Reasonable Period:

- Consultation information provided to YMAC on 1 August 2023 based on their function, interest and activities.
- Woodside addressed and responded to YMAC over a 5 month period, demonstrating a “reasonable period” of consultation.
- Woodside asked YMAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.
- Woodside has provided a reasonable opportunity for input since July 2023 and a genuine two-way dialogue has occurred.
- Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of the EP).
- Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on YMAC functions, interests or activities.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed the Consultation Information Sheet to YMAC (Record of Consultation, reference 1.21)
- On 13 March 2023, Woodside emailed YMAC as to whether YMAC considers itself a ‘relevant person’ under regulation 11(A)(1) of the Environment Regulations for the purposes of consultation on EPs and, if so, whether that relevance is limited to a facilitation function in its capacity as a representative of Traditional Owner groups/corporations that overlap or adjacent to the environment that may be affected (EMBA) of a particular activity.
- On 15 March 2023, Woodside emailed YMAC to request a response as to whether YMAC considers itself a ‘relevant person’ under relevant sections of the Environment Regulations for the purposes of consultation in EPs.
- **(1)** On 20 March 2023, YMAC replied to confirm that in its view it is a ‘relevant person’ under regulation 11(A)(1) of the Environment Regulations for the purposes of consultation on EPs only in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation. YMAC does not intend to provide substantive comment on the content of EPs.
- On 20 March 2023, Woodside emailed YMAC to thank it for its reply and to advise that that this assessment would be included in Woodside’s EPs.
- On 20 March 2023, YMAC emailed Woodside confirming that they agree to their advice being included in reporting (YMAC is the representative for NTGAC).
- On 12 June 2023, YMAC emailed Woodside on behalf of itself and its clients. The email attached:
 - **(2)** a proposal to fund in-house expertise to support consultations and administration of the consultation framework.
 - **(2)** a draft consultation framework.
- On 12 June 2023, Woodside emailed YMAC, thanking them for the documents and informing them that Woodside would respond shortly.
- On 25 July 2023, Woodside emailed YMAC:
 - Agreeing in principle to the draft consultation framework and funding proposal but seeking further discussion on details,
 - Attaching Woodside’s Program for Ongoing Engagement with Traditional Custodians,
 - Stating that Woodside is open to considering an industry funded position at YMAC to support the work they are facilitating,
 - Seeking a meeting with YMAC in relation to the draft consultation framework at YMAC’s earliest convenience.

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<ul style="list-style-type: none"> On 1 August 2023, Woodside emailed YMAC as representatives of NTGAC, advising of the proposed activity (Record of Consultation, reference 3.24) and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) YMAC provided feedback that in its view it was a 'relevant person' under regulation 11A(1) of the Environment Regulations for the purposes of consultation on EPs only in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation and does not intend to provide substantive comment on the content of EPs.</p> <p>(2) YMAC has provided feedback that it is seeking an industry funded position to support consultations for this and other activities. YMAC has provided a draft consultation framework to assist the consultation process.</p>	<p>(1) Woodside notes YMAC's position that it does not intend to provide substantive comment on EPs.</p> <p>(2) Woodside has assessed the Program of Ongoing Engagement with Traditional Custodians will support ongoing consultation with YMAC and/or the groups it represents. This can address appropriate support for resourcing, separate from consultation under Reg 11A, Sufficient information to allow informed assessment has already been provided by other means.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>(2) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on EPs. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix I.</p>

Local government and community representative groups or organisations

Shire of Exmouth

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Shire of Exmouth for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Shire of Exmouth on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Shire of Exmouth with the opportunity to provide feedback over a 5 month period.

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<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed Shire of Exmouth advising of the proposed activity (Record of Consultation, reference 3.34) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Shire of Exmouth following up on the proposed activity (Record of Consultation, reference 4.3), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>While feedback has been received, there were no objections or claims.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional EP controls are required.</p>
<p>Shire of Ashburton</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Shire of Ashburton for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to Shire of Ashburton on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the Shire of Ashburton with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed the Shire of Ashburton advising of the proposed activity (Record of Consultation, reference 3.37) and provided a Consultation Information Sheet. On 31 July 2023, the Shire of Ashburton emailed Woodside with feedback as follows: <ul style="list-style-type: none"> (1) The Shire expects that Woodside will identify, manage and mitigate all possible impacts and risks in line with relevant regulatory frameworks, 		

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- **(2)** The Aboriginal Cultural Heritage Inquiry System (ACHIS) should be consulted to ensure site of significance are not impacted without consents,
- **(3)** The Shire requires Woodside to brief the Shire's Local and District Emergency Management Committee's on its planned responses to such events before any activities commence,
- **(4)** Asks that Woodside has communicated with appropriate emergency management agencies at either/or National, State, District and Local levels on potential hazards and risks around the activity; collaboration and/or cooperation on risk mitigation; considered impacted areas response capacity and capability and sustainability of response activities and escalation triggers,
- **(5)** The Shire anticipates that Woodside has undertaken their own emergency management planning to mitigate risk and recover from a risk related incident, has engaged with external emergency management agencies to ensure emergency management plans are aligned with outcomes to respond and/or recovery from the incident,
- **(6)** The Shire anticipates that Woodside has engaged with the community regarding what may happen in areas that are affected by the proposed activities,
- **(7)** Part of the proposed activities are associated with future decommissioning works and that Woodside may consider the Shire operated Pilbara Regional Waste Management Facility (PRWMF) for its decommissioning, recycling and waste disposal purposes,
- **(8)** The Shire appreciates the opportunity to comment on the proposed activities and requests that Woodside provide the Shire with further updates as the proposal progresses.
- On 7 August 2023, Woodside responded and thanked the Shire for its comments and noted:
 - Woodside is required to manage environmental impacts and risks to the environment that may be affected (EMBA) by its proposed activities to As Low As Reasonably Practicable (ALARP) and to an acceptable level, as required by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations), through the implementation of the EP. Woodside's proposed EPs will be submitted to the National Offshore Petroleum Safety Environmental Management Authority (NOPSEMA) for assessment and acceptance,
 - Woodside routinely utilises the Department of Planning, Land and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System as part of the EP development process and includes the results of these inquiry system searches as an appendix to each EP,
 - Woodside welcomes the opportunity to brief the Shire on its approach to managing a hydrocarbon release in the highly unlikely event this occurs. Woodside asked the Shire to please advise whether the Shire would like a briefing prior to every activity or a high level overview and also advise on possible times for a meeting,
 - Woodside has an Oil Pollution First Strike Plan in place for all EPs which details potential impacts, notifications and response mitigations that may be executed to manage an emergency event,
 - Regarding engaging with the community, Woodside consults relevant persons in the course of preparing an EP in accordance with regulation 11A of the Environment Regulations,
 - Regarding the PRWMF, Woodside noted the Shire's interest in ongoing local content opportunities and advised it aimed to work with local business where practical, to create and build community capacity and capability,
 - Woodside confirmed it would continue to provide the Shire with updates.
- On 14 August 2023, Shire of Ashburton emailed to invite Woodside to present at the Shire's December community information sessions. It was also suggested that for more regular information sharing, Woodside could submit articles to the Onslow Pipeline.
- On 26 September 2023, Woodside emailed the Shire of Ashburton asking if there was an opportunity to attend the Shire's Local and District Emergency Management Committee (LEMC) meeting.

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<ul style="list-style-type: none"> • On 26 September 2023, the Shire of Ashburton responded with the next LEMC meeting date and shared the contact details for Woodside to be added to the invite list. • On 26 September 2023, Woodside emailed Shire of Ashburton with a list of desired meeting attendees and confirmed start time. • On 26 September 2023, the Shire of Ashburton responded with a Teams link invite and confirmed contact details. • On 17 October 2023, Shire of Ashburton and Woodside exchanged further emails confirming presentation start time and attendee details. • On 21 November 2023, Woodside presented at Shire of Ashburton’s LEMC meeting and provided: <ul style="list-style-type: none"> – An overview of proposed activities relevant to the Shire including this EP, – An outline of the consultation approach and explanation of the EMBA as a modelling process of the broadest extent an unplanned hydrocarbon release could spread based on a number of conditions, – Details of the oil spill response approach in the highly unlikely event of a hydrocarbon spill, – Woodside’s key steps when activating an oil spill response plan, – Shire of Ashburton thanked Woodside for presenting to the committee and no questions or concerns were raised. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>Shire of Ashburton recognises and supports the contribution of the oil and gas sector and raises no objection to the proposed activities. It noted a number of expectations around:</p> <ol style="list-style-type: none"> (1) Identifying, managing and mitigating all possible impacts and risks, (2) Consulting ACHIS, (3) Briefing the Shire’s Local and District Emergency Management Committee, (4) Ensuring Woodside communicates with appropriate national and state emergency management agencies, (5) Woodside having emergency management planning in place, (6) Woodside has engaged with the community, (7) Woodside considers future decommissioning works utilising the PRWFMF, 	<p>Woodside:</p> <ol style="list-style-type: none"> (1) Advised it is required to manage impacts to ALARP, (2) Routinely utilises DPLH Aboriginal Cultural Heritage Inquiry System and includes the results of these inquiry system searches as an appendix to each EP, (3) Presented at the Shire’s LEMC to outline oil spill response approach, (4) Has an Oil Pollution First Strike Plan in place for all EPs which details potential impacts, notifications and response mitigations that may be executed to manage an emergency event, (5) As above (6) Regarding engaging with the community, Woodside consults relevant persons in the course of preparing an EP in accordance with regulation 11A of the Environment Regulations,, (7) Regarding PRWFMF, Woodside advised it aimed to work with local business where practical, (8) Woodside confirmed it would continue to provide the Shire with updates. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it</p>	<ol style="list-style-type: none"> (1) Existing controls considered sufficient as described in Section 7 of this EP, (2) For this EP a search of DPLH’s Aboriginal Cultural Heritage Inquiry System was undertaken (see Appendix G of this EP), (3) Not required (4) In the course of developing this EP, Woodside has developed oil spill preparedness and response positions (see Appendix H of this EP), (5) As above. (6) Woodside consults relevant persons in the course of developing an EP as described in Section 6.3 of this EP, (7) Woodside has implemented a consultation program to advise relevant persons of the activity and provide opportunity to raise objections or

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<p>(8) Woodside providing SoA with updates as the proposal progresses. Whilst feedback has been received, there were no objections or claims.</p>	<p>will be assessed and where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>claims, as described in Section 6 of the EP. (8) Woodside will notify SoA prior to commencement of activity as referenced as PS 1.4 of the EP. Woodside considers the measures and controls in the EP address the Shire of Ashburton’s functions, interests or activities. No additional measures or controls are required.</p>
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City of Karratha

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with City of Karratha for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since May 2022.
- Consultation information provided to City of Karratha on 9 May 2022 based on their function, interest and activities.
- Updated Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the City of Karratha with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed City of Karratha advising of the proposed activity (Record of Consultation, reference 1.20) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 24 July 2023, Woodside emailed City of Karratha advising of the proposed activity (Record of Consultation, reference 3.36) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed City of Karratha following up on the proposed activity (Record of Consultation, reference 4.47), and provided a Consultation Information Sheet.
- On 15 December 2023, Woodside emailed City of Karratha following up on the proposed activity (Record of Consultation, reference 4.52), and provided a Consultation Information Sheet.

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Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.

Exmouth Community Liaison Group (CLG)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Exmouth CLG for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Exmouth CLG on 24 July 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Exmouth CLG with the opportunity to provide feedback over a 5 month period.

Summary of consultation provided and responses:

- On 24 July 2023, Woodside emailed Exmouth CLG advising of the proposed activity (Record of Consultation, reference 3.37) and provided a Consultation Information Sheet.
- On 27 July 2023, the Exmouth CLG met with Woodside and other companies and discussed a number of projects:
 - Woodside acknowledged the increase in consultation material the CLG members had been receiving and reminded members of the changes requiring consultation based on EMBA's,
 - Woodside presented a slide listing the EPs for which members had been consulted recently and potential EPs in the remainder of 2023,
 - No feedback was received regarding the EPs. All CLG members were emailed a copy of the meeting slides after the meeting.
- On 7 August 2023, Woodside emailed Exmouth CLG following up on the proposed activity (Record of Consultation, reference 4.1) and provided a Consultation Information Sheet.
- **(1) and (2)** On 7 August 2023, a CLG member emailed Woodside requesting an estimated chronological schedule for both decommissioning and on-going maintenance stating that its greatest general concern other than any effect on traveling mega fauna in the area surrounding the proposed activities is the transfer by ocean currents of polluting hydrocarbons both oil and leaking gas.

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<ul style="list-style-type: none"> On 16 August 2023, Woodside responded: <ul style="list-style-type: none"> Woodside was not able to confirm the exact schedule for decommissioning and ongoing inspection, maintenance, and repair (IMR) of the wellheads but that as per the Consultation Information Sheet, removal activities would start for the seven wells accepted as abandoned from as early as Q1 2024, Woodside was undertaking a process to select a contractor to undertake the initial works yet exact dates for removal were subject to the awarding of the contract and vessel availability, Woodside acknowledged the CLG member's concern regarding impact to migratory fauna and advised that for wells managed under this EP, the risk of escape of hydrocarbons from reservoirs was considered unlikely as the wellheads would only be removed once the wells had been permanently abandoned and their abandonment status had been accepted by NOPSEMA. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>An Exmouth CLG member:</p> <ul style="list-style-type: none"> (1) Requested a schedule for decommissioning and ongoing maintenance, (2) Expressed concern for traveling mega and the transfer by ocean currents of polluting hydrocarbons both oil and leaking gas. <p>While feedback was received, there were no objections or claims.</p>	<p>Woodside:</p> <p>(1) Advised Exmouth CLG that the exact schedule for decommissioning could not yet be confirmed but the activities could start as early as Q1 2024 and that a contractor selection process was underway and that dates were subject to this and vessel availability,</p> <p>(2) Advised impacts to migratory fauna and potential impact from Woodside operations but that for wells under this EP, the risk of escape of hydrocarbons was considered unlikely as the wellheads would only be removed once the wells had been permanently abandoned and their status accepted by NOPSEMA (Section 7.6.1 of the EP).</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1) Not required.</p> <p>(2) Woodside considers it has adopted appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of a hydrocarbon spill, as demonstrated in Section 7.8 of the EP.</p> <p>Woodside considers the measures and controls in the EP address Exmouth CLG's functions, interests or activities.</p> <p>No additional measures or controls are required.</p>
<p>Karratha Community Liaison Group (CLG)</p>		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Karratha CLG for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since May 2022. Consultation information provided to Karratha CLG on 9 May 2022 based on their function, interest and activities. Updated Consultation Information Sheet publicly available on the Woodside website since July 2023. 		

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- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside has sent follow up emails seeking feedback on the proposed activities.
- Woodside has provided the Karratha CLG with the opportunity to provide feedback over a 19 month period.

Summary of consultation provided and responses:

- On 9 May 2022, Woodside emailed Karratha Community Liaison Group advising of the proposed activity (Record of Consultation, reference 1.18) and provided a Consultation Information Sheet and Historical Exploration Wellhead Information Sheet.
- On 24 July 2023, Woodside emailed Karratha CLG advising of the proposed activity (Record of Consultation, reference 3.38) and provided a Consultation Information Sheet.
- On 7 August 2023, Woodside emailed Karratha CLG following up on the proposed activity (Record of Consultation, reference 4.40), and provided a Consultation Information Sheet.
- On 15 December 2023, Woodside emailed Karratha CLG following up on the proposed activity (Record of Consultation, reference 4.53), and provided a Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

Onslow Chamber of Commerce and Industry

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Onslow Chamber of Commerce and Industry for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.

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<ul style="list-style-type: none"> • Consultation information provided to Onslow Chamber of Commerce and Industry on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the Onslow Chamber of Commerce and Industry with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed Onslow Chamber of Commerce and Industry advising of the proposed activity (Record of Consultation, reference 3.39) and provided a Consultation Information Sheet. • On 7 August 2023, Woodside emailed Onslow Chamber of Commerce and Industry following up on the proposed activity (Record of Consultation, reference 4.2), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional measures or controls are required.
Other non-government groups or organisations		
Telstra		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Telstra for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to Telstra on 10 October 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided Telstra with the opportunity to provide feedback over a 2 month period. 		

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Summary of consultation provided and responses:

- On 10 October 2023, Woodside emailed Telstra advising of the proposed activity (Record of Consultation, reference 4.41) and provided a Consultation Information Sheet and a communication cable map (Record of Consultation, reference 4.42).
- On 29 November 2023, Woodside emailed Telstra following up on the proposed activity (Record of Consultation, reference 4.45), and provided a Consultation Information Sheet.
- **(1)** On 4 December 2023, Telstra emailed Woodside to advise that Telstra may have network in the vicinity that may be impacted by Woodside’s proposed activities which may require relocation. Telstra urged Woodside to contact Dial Before You Dig and to request plans to show the assets in the area. Once received utilising an Accredited Plant Locator, locate all services and survey to determine if conflicts exist. Telstra further stated that if Woodside was able to complete its works to avoid the Telstra network and adhere to the standards to do so otherwise costs will be incurred to relocate the Telstra network accordingly to meet the required standards and practices.
- On 5 December 2023, Woodside emailed a contact at Telstra with whom Woodside had engaged on a separate activity. A Consultation Information Sheet and communication cable map was attached.
- **(2)** On 5 December 2023, Telstra responded that it would review the GPS coordinates of the proposed wellheads against Telstra cable data to establish whether there were any wells near Telstra cables. Telstra queried:
 - **(3)** More details around the work schedule (other than ‘Q1 2024),
 - **(4)** Whether the DP rating of the vessel to be used for the activities would be at least DP-2.
- On 6 December 2023, Woodside thanked Telstra for its response and advised it would revert with the information requested.
- On 12 December 2023, Woodside advised:
 - Pending EP approval, the wellhead removal campaign was anticipated to commence in June 2024 and to be completed around July 2024.
 - An offshore support vessel was proposed to be used to remove the wellheads and associated infrastructure. If required, a general support vessel may be used to transport equipment and materials between the Operational Areas and port or to perform standby duties within the Operational Areas. Both vessels are DP-2.
 - Woodside requested any further feedback regarding the proposed activities to be provided by 18 December 2023.
- **(5)** On 18 December 2023, Telstra responded with a chart depicting wellheads of interest to Telstra i.e North Rankin-3 (the closest at approx. 265 metres). Telstra advised that work on this wellhead would need to be performed in close consultation with Telstra and would need to be performed under a Telstra Planned Event (Hazard).
- On 19 December 2023, Woodside thanked Telstra for the information provided and:
 - Advised Woodside had added a control to the EP to ensure Telstra was notified prior to commencement and on completion of activities the subject of this EP,
 - Requested more information on Telstra’s Planned Event (Hazard),
 - Clarified that the first wellhead removal campaign under this EP was planned for June 2024 but did not include any North Rankin wells at that time. Removal of North Rankin-3 had not been scheduled but might be undertaken at any point during the next five years. Consultation would be undertaken prior to commencing any activities in accordance with the control mentioned above.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>Telstra:</p> <ul style="list-style-type: none"> • (1) Advised it may have network in the vicinity that may be impacted by the proposed activities and provided further contact details for Woodside. • (2) Advised it would review the GPS coordinates of the proposed wellheads against Telstra cable data, • (3) Asked for more detail re the work schedule, • (4) Queried the DP rating of the vessel to be used. <p>Telstra later advised:</p> <ul style="list-style-type: none"> • (5) Due to its proximity to Telstra cables, work on the North Rankin-3 wellhead would need to be performed in close consultation with Telstra and under a Telstra Planned Event (Hazard). 	<p>Woodside:</p> <ul style="list-style-type: none"> • (1) Contacted an alternative Telstra representative over concern the consultation information had not reached the correct recipient/s at Telstra. • (2) Acknowledged Telstra’s commitment to review the wellheads, • (3) Advised the wellhead removal campaign was scheduled to commence on 5 June 2024 and complete by 7 July 2024. • (4) Advised an offshore support vessel and potentially a general support vessel were both DP-2. • (5) Committed to consult with Telstra prior to commencement of activities on North Rankin-3; requested more information on Telstra’s Planned Event (Hazard), and clarified the timing of the removal of North Rankin-3. <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1-4) Not required.</p> <p>(5) Woodside will consult Telstra prior to the commencement of activities on North Rankin-3, as referenced as PS 1.4 in this EP.</p> <p>Woodside considers the measures and controls are appropriate.</p>
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Vocus

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Vocus for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2023.
- Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Vocus on 13 September 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Telstra with the opportunity to provide feedback over a 3 month period.

Summary of consultation provided and responses:

- On 13 September 2023, Woodside emailed Vocus advising of the proposed activity (Record of Consultation, reference 4.33) and provided a Consultation Information Sheet and a communication cable map (Record of Consultation, reference 4.42).

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<ul style="list-style-type: none"> • On 18 September 2023, Vocus emailed Woodside to: <ul style="list-style-type: none"> ○ (1) Advise that the nearest well to the Vocus – Highclere submarine cable was ~ 24km thus there was little to no risk to their Highclere system. ○ (2) Further advise Vocus would keep an eye on the works and if Vocus required any marine operations in the area, it would liaise with Woodside prior to ensure there was no interference with either operations. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>Vocus advised;</p> <ul style="list-style-type: none"> • (1) Woodside’s activities posed little to no risk to Vocus’ Highclere system, • (2) If it required any marine operations in the area it would liaise with Woodside to ensure there was no interference with operations. <p>While feedback has been received, there were no objections or claims.</p>	<p>(1, 2) Woodside noted Vocus’ advice that activities posed little to no risk to Vocus’ Highclere system, and that if Vocus required any marine operations in the area, it would liaise with Woodside prior.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>(1, 2) Not required.</p> <p>No additional measures or controls are required.</p>
Research institutes and local conservation groups or organisations		
Cape Conservation Group (CCG)		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with CCG for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> • Consultation Information Sheet publicly available on the Woodside website since July 2023. • Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. • Consultation information provided to CCG on 24 July 2023 based on their function, interest and activities. • Woodside has sent a follow up email seeking feedback on the proposed activities. • Woodside has provided the CCG with the opportunity to provide feedback over a 5 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 24 July 2023, Woodside emailed CCG advising of the proposed activity (Record of Consultation, reference 3.41) and provided a Consultation Information Sheet. 		

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<ul style="list-style-type: none"> On 7 August 2023, Woodside emailed CCG following up on the proposed activity (Record of Consultation, reference 4.10), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).	No additional EP controls are required.
Protect Ningaloo		
<p>Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Protect Ningaloo for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 6.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> Consultation Information Sheet publicly available on the Woodside website since July 2023. Woodside published advertisements in a national, state and relevant local newspapers including The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph (19 July 2023) and National Indigenous Times (25 July 2023) and Koori Mail (26 July 2023) advising of the proposed activities and requesting comments or feedback. Consultation information provided to Protect Ningaloo on 24 July 2023 based on their function, interest and activities. Woodside has sent a follow up email seeking feedback on the proposed activities. Woodside has provided the Protect Ningaloo with the opportunity to provide feedback over a 2 month period. <p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed Protect Ningaloo advising of the proposed activity (Record of Consultation, reference 3.2) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed Protect Ningaloo following up on the proposed activity (Record of Consultation, reference 4.5), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 in this EP).</p>	<p>No additional EP controls are required.</p>
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Table 3: Engagement Report with Persons or Organisations Assessed as Not Relevant

Commonwealth and WA State Government Departments or Agencies – Marine		
Australian Communications and Media Authority (ACMA)		
<p>Summary of consultation provided and responses:</p> <ul style="list-style-type: none"> • On 9 May 2022, Woodside emailed ACMA advising of the proposed activity (Record of Consultation, reference 1.2) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and a communication cable map (Record of Consultation, reference 1.29). • On 7 June 2022, Woodside emailed ACMA, following up on the proposed activity (Record of Consultation, reference 2.1), and provided the updated Consultation Information Sheet. • On 1 September 2023, Woodside emailed ACMA an update on the proposed activity (Record of Consultation, reference 4.32) and provided an updated Consultation Information Sheet and communication cable map (Record of Consultation, reference 4.42). • On 8 September 2023, ACMA responded to Woodside: <ul style="list-style-type: none"> – ACMA provided background on its role, – (1) ACMA stated that the Operational Areas identified in Woodside’s information on the activity were not in the vicinity of any existing protection zones, but did appear to be in the vicinity of submarine cables. As such, ACMA encouraged Woodside to contact the owner of any submarine cables within its project area(s) to discuss its plans, if it had not already done so, – ACMA also stated that the communication cable map Woodside had sent for the activity which showed a cable to the north of the Operational Areas as ‘proposed’ appeared to be part of Vocus’ Darwin Jakarta Singapore cable system which (for Woodside’s information only) had been installed and switched on as of July 2023, – (2) ACMA recommended that Woodside contact the AHO for further assistance identifying submarine cables that may be impacted by the proposed activities. • On 29 November 2023, Woodside emailed ACMA to thank it for its information and advice received in September regarding submarine cables. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>ACMA advised:</p> <p>(1) As the Operational Areas appeared to be in the vicinity of submarine cables, Woodside should contact the owner of any submarine cables within its project areas to discuss its plans,</p> <p>(2) Woodside should contact the AHO for further assistance identifying submarine</p>	<p>Woodside:</p> <p>(1) Acknowledged ACMA’s advice and information and contacted owners of submarine cables in the vicinity of the activity i.e., Vocus and Telstra, and provided both with information on the proposed activity.</p> <p>(2) Contacted the AHO as per ACMA’s recommendation.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it</p>	<p>(1 and 2) Not required.</p> <p>No additional measures or controls are required.</p>
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<p>cables that may be impacted by the proposed activities. While feedback has been received, there were no objections or claims.</p>	<p>will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	
<p>Commonwealth Commercial fisheries and representative bodies</p>		
<p>Australian Southern Bluefin Tuna Industry Australia (ASBTIA)</p>		
<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 9 May 2022, Woodside emailed ASBTIA advising of the proposed activity (Record of Consultation, reference 1.15) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map. On 24 July 2023, Woodside emailed ASBTIA advising of the proposed activity (Record of Consultation, reference 3.13) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed ASBTIA following up on the proposed activity (Record of Consultation, reference 4.29), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>Woodside has consulted relevant Commonwealth fishery stakeholders including AFMA, DAFF-Fisheries, CFA, WAFIC and Tuna Australia.</p> <p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside considers it has provided sufficient information and opportunity to respond and considers this adequately addresses stakeholder interests.</p> <p>No additional measures or controls are required.</p>
<p>Tuna Australia</p>		

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Summary of information provided and record of consultation:

- On 9 May 2022, Woodside emailed Tuna Australia advising of the proposed activity (Record of Consultation, reference 1.15) and provided a Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and relevant fisheries map.
- On 17 June 2022, Tuna Australia responded advising that it was developing a response on the EP and was waiting on member feedback. Tuna Australia requested an extension to 1 July 2022 to provide feedback on the EP.
- On 20 June 2022, Woodside emailed Tuna Australia thanking it for its email and confirmed the requested extension to 1 July 2022 for feedback on the EP.
- On 1 July 2022, Tuna Australia responded and provided an overview of the fishery, including potential future activity, and requested:
 - (1) More information regarding downstream effects from the activity, such as discharges and seabed disturbances.
 - (2) Further understanding of potential interactions during activities in the Operational Areas and exclusion zones, particularly as the fishery uses longline fishing
 - (3) Advice regarding acoustic interferences from the proposed activity.
 - (4) Tuna Australia also commented on marine spatial congestion and requested reassurance that the activities would be completed in an expeditious timeframe.
- On 28 July 2022, Woodside responded thanking Tuna Australia for the information provided on the fishery and its members as well as feedback on the proposed EP. Woodside:
 - Acknowledged the co-existence of commercial fishers and Woodside operations and confirmed Woodside plans to undertake activities in accordance with the EP and as expeditiously as possible,
 - Provided background information on the proposed activity (similar to the information provided in the Consultation Information Sheet),
 - Noted Tuna Australia's comments that while there is an overlap with the Western Tuna and Billfish Fishery management area and the Operational Areas, no recent fishing effort has occurred within or nearby to the Operational Areas, and that no fishing effort has occurred for at least the last ten years,
 - Noted Tuna Australia's comments that there is potential for future fishing effort in the region, potentially in 2023.Woodside advised of EP controls, including minimising the temporary exclusion zone to 500 m and permitting commercial fishers and other marine users to enter the Operational Areas. Woodside noted:
 - Routine marine discharges would be managed according to legislative and regulatory requirements,
 - Any localised impacts to water quality, sediment quality and marine fish are not expected to impact any commercial fisheries in the area and there will be no toxicological effects,
 - Seabed disturbance associated with cutting the wellheads will be minimal given the cuts are planned to be made from within the well below the mudline,
 - Seabed disturbance from sediment relocation, subsea cleaning, ROV use and set down of the wellheads prior to recovery will be temporary and localised,
 - Noise generated in the air and underwater would be due to the operation of project vessels.
- On 15 March 2023, Tuna Australia responded, providing Woodside their position statement for engaging with energy companies seeking consultation advice from stakeholders on environmental plans and project proposals:
 - An overview of Tuna Australia's functions, interests and activities as well as the organisation's company objectives,
 - The geographic areas that Tuna Australia represents by membership Statutory Fishing Rights,

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- A recommendation that project proponents also engage with the Australian Southern Bluefin Tuna Industry Association for any proposals in the Southern Bluefin Tuna fishing area,
- The position that Tuna Australia considers itself a 'relevant person' consistent with NOPSEMA guidelines,
- A request that Tuna Australia be contacted when any proposed activity has the potential to impact vessel navigation, fishing activities, and/or the conservation of fish resources consistent with the Offshore Petroleum and Greenhouse Gas Storage Act 2006,
- A request for a map from proponents of the proposed activity to determine if its member interests may be affected on a case-by-case basis,
- A request that where potential effects exist, there is a need for a service agreement. Tuna Australia advised it can no longer coordinate consultation with offshore energy activities on behalf of our members without a service agreement in place. Tuna Australia requests proponents execute our services agreement and provide information in a written succinct manner including estimated boundaries for extent of planned activity impacts (i.e. artificial light, noise, discharges etc) as well as activities within the operational areas. This advice will be distributed to members and non-members holding SFRs in the Eastern (114 concession holders) and Western (61 concession holders) Tuna and Billfish Fisheries for comment. Information provided would be relevant to tuna and billfish fisheries in the area that may affect vessel navigation, fishing activities, and/or the conservation of fish resources based on the planned aspects of the activity, and proposed control measures to manage impacts,
- Tuna Australia noted that it wishes to engage constructively with project proponents for all situations where there is potential for conflict with vessel navigation, access to fishing area and/or gear, and the biology of target fish and baitfish. Advice provided can change annually due to the dynamic nature of our fisheries,
- Tuna Australia encouraged companies requiring advice from our sector to enter into a consultation services agreement with Tuna Australia to support their applications. Noting that Tuna Australia may be able to provide information on vessel navigation, fishing activities and/or the conservation of fish resources that may be affected that is not publicly available and will be an important input to environmental impact and risk assessment processes.
- On 17 May 2023, Woodside thanked Tuna Australia for its industry position statement and stated:
 - The level of feedback provided by an organisation, if any, is at the person or organisation's discretion. Woodside did not expect organisations to provide reports or engage consultants to provide feedback,
 - Woodside was open to suggestions to make consultation more manageable,
 - Woodside was happy to meet with Tuna Australia to provide an overview of its proposed activities, how EPs were developed and the extensive controls in place to reduce impacts to ALARP and acceptable. Woodside further advised the aim was to provide an efficient, simple way to obtain feedback and assist in understanding Woodside's activities so Tuna Australia's input could be considered in the development of EPs.
- On 17 May 2023, Tuna Australia wrote to NOPSEMA (and copied Woodside) regarding Woodside's position on engagement with Tuna Australia as the lead representative organisation and relevant person for concession holders in the Western Tuna and Billfish Fishery (WTBF). Tuna Australia stated:
 - Energy companies who executed service agreements with Tuna Australia ensured all WTBF and Eastern Tuna and Billfish Fishery concession holders were consulted on EPs and responses were provided in a report. This process was efficient and met consultation requirements,
 - It was unfortunate Woodside did not appreciate the nature of fishing and were more content to receive information to support their EPs free of charge which was not consistent with Woodside's company values,
Not all energy companies wanted to keep sponging off the community that wished to assist them. Tuna Australia had sound relationships with many energy companies who recognised Tuna Australia as a relevant person and had executed service agreements. In exchange Tuna Australia consulted with concession holders and provided informed, up to date commentary and information consistent with Tuna Australia's industry position statement,

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- The WTBF fishing zone had been in place for a long time before the start of energy exploration in the marine environment. Tuna Australia was pleased that many energy companies respected this history. Woodside however failed to recognise that the WTBF was even a relevant person. For example, the WTBF was not listed as a relevant fishery in another Woodside EP,
- WTBF concession holders were concerned with developments in their fishing zone and had comments and questions on EPs and proposals,
- Tuna Australia requested NOPSEMA stipulated that all EP submissions received formal advice from Tuna Australia.
- On 26 May 2023, Woodside had a phone call with the Tuna Australia CEO and:
 - Explained that Woodside would like to discuss a path forward following receipt of Tuna Australia's Position Statement across its EP activities, including the activities proposed under this EP,
 - Noted Tuna Australia's correspondence to NOPSEMA and copied to Woodside dated 17 May 2023, with respect to unrelated EPs,
 - Noted Tuna Australia's previous EP consultation feedback that Woodside had responded to with respect to unrelated EPs,
 - Reiterated that Woodside does not expect Tuna Australia to provide a consultation report for each of its EPs and are concerned about this potential misalignment on expectations,
 - Tuna Australia advised it would like to discuss a way forward as woodside suggested and requested Woodside call Tuna on 30 May 2023, which Woodside committed to.
- On 2 June 2023, Woodside made a follow up phone call to Tuna Australia and left a voicemail covering the following:
 - Woodside called Tuna Australia on 2 June 2023 to follow up on phone call on 26 May 2023,
 - Woodside left a message requesting a call back and the opportunity to meet with Tuna Australia to discuss Woodside's portfolio of environment plan activities,
 - Woodside requested the opportunity to discuss options to consult with Tuna Australia and potentially lessen the burden on Tuna Australia for providing feedback on Woodside's EPs,
 - Woodside offered the opportunity to take Tuna Australia through the entire EP portfolio, inclusive of decommissioning, so Tuna Australia could better assess the volume of activities,
 - Woodside reiterated that there was no expectation for Tuna Australia to provide a consultation report on each individual EP, and potentially there is an opportunity for Woodside and Tuna Australia to work together on a more strategic approach.
- On 6 June 2023, Tuna Australia returned Woodside's call re: opportunity to meet to discuss a more strategic approach to consultation.
- On 8 June 2023, Tuna Australia returned Woodside's call and asked Woodside to call back on 14 June 2023.
- On 14 June 2023, Woodside returned Tuna Australia's phone call and left a message for Tuna Australia to call back.
- On 20 June 2023, Woodside and Tuna Australia held a meeting to discuss Tuna Australia's Industry Position Statement.
 - Woodside provided an overview of its activities and explained how recent case law and NOPSEMA guidance had resulted in Woodside undertaking consultation on the widest potential 'EMBA',
 - Tuna Australia agreed to share with Woodside the name of any of the Offshore Sectors' titleholders that have entered into Tuna Australia's service agreement to date,

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- Tuna Australia also agreed to provide more detail on how TA will distribute consultation materials to its membership/licence holders and the format of any report arising from the data collected,
- Woodside committed to review Tuna Australia's Service Agreement.
- On 26 June 2023, Woodside emailed Tuna Australia following the meeting held on 20 June 2023 and recapped what was discussed.
 - Woodside thanked Tuna Australia for its time and stated it looked forward to continuing to work with Tuna Australia,
 - Woodside directed Tuna Australia to contact the Woodside Feedback inbox for any further information.
- On 30 June 2023, Tuna Australia's CEO responded to Woodside's email of 26 June 2023. Tuna Australia:
 - Noted outcomes of the recent case law focussed on stakeholder engagement and ensuring energy companies meet regulatory requirements and NOPSEMA guidelines,
 - Requested Woodside send the recent case law,
 - Reached out to energy companies who have executed a services agreement with Tuna Australia and asked whether TA could inform Woodside about their working relationship. Beach Energy confirmed it was happy for Tuna Australia to share its details,
 - Advised how it contacts concession holders and what it provides to them,
 - Provided a Tuna Australia contact who manages engagement with energy companies to progress a service agreement with Tuna Australia,
- On 17 July 2023, Woodside emailed Tuna Australia and confirmed:
 - Woodside's legal team had reviewed the Tuna Australia document and requested some minor changes to be made,
 - Woodside asked Tuna Australia if a marked up version of the Service Agreement would be the simplest way for Tuna Australia to review,
 - Woodside attached a Supplier Questionnaire as part of its due diligence process and asked Tuna Australia to complete the form.
- On 18 July 2023, Tuna Australia emailed Woodside and confirmed:
 - Woodside should send a marked up version of the Service Agreement for TA to review,
 - TA would fill out the Supplier Questionnaire and return in the next couple of days.
- On 18 July 2023, Woodside emailed Tuna Australia and sent a marked up version of the Service Agreement for TA to review.
- On 19 July 2023, Tuna Australia emailed Woodside and thanked it for sending through edits to TAs services agreement and commented:
 - Tuna Australia does not want any changes made to Schedule 2 of their Service Agreement and if Woodside has requirements outside of what Tuna Australia provides, then this will need to be discussed, agreed, and costed accordingly,
 - Tuna Australia would like further details on the Annual service for the Woodside Master Existing document including the rationale for the payment proposed,
 - Tuna Australia does not agree to a fixed price for the above bodies of work. Tuna Australia wants clarification on what the Annual service entails, and how the fixed priced value was arrived at,
 - Re the fixed fee for delivery of a specific consultation service, Tuna Australia need to remain flexible to clients needs and discuss additional works should they be required. Tuna Australia A says it specified in the schedule that it would never proceed with more work or charge more money without approval and this should suffice for Woodside,

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- Tuna Australia does not agree on the current terms which have been changed in Item 2 of Schedule 1 and says it seeks a two year agreement as per the agreement template.
- On 24 July 2023, Woodside emailed Tuna Australia advising of the proposed activity (Record of Consultation, reference 3.13) and provided a Consultation Information Sheet.
- On 2 August 2023, Woodside emailed Tuna Australia, thanked them for their response re the Service Agreement and advised that Woodside’s legal team would review and Woodside would revert as soon as possible. Woodside asked Tuna Australia to complete the Supplier Questionnaire sent on 17/7/2023.
- On 3 August 2023, Tuna Australia replied, apologised for the delay and sent the completed Supplier Questionnaire to Woodside.
- On 7 August 2023, Woodside emailed Tuna Australia following up on the proposed activity (Record of Consultation, reference 4.29), and provided a Consultation Information Sheet.
- On 8 August 2023, Tuna Australia responded in regard to another EP stating that as per its recent discussions with Woodside, Tuna Australia could consult on the EP once it had a services agreement in place.
- On 23 August 2023, Tuna Australia emailed Woodside following up on Woodside’s consultation requirements with the tuna longline industry regarding another EP. Tuna Australia asked for clarity on whether Woodside was planning to engage Tuna Australia to consult on behalf of the tuna longline industry on this and other upcoming EPs that Woodside was seeking feedback on.
- On 30 August Woodside emailed Tuna Australia and advised that Tuna Australia’s feedback on the Service Agreement had been discussed with Woodside’s legal team. Woodside asked for clarity on whether Tuna Australia would accept section 15: Ethical Business Practices. Once this had been accepted, Woodside could work through Tuna Australia’s other points.
- On 4 September 2023, Tuna Australia emailed Woodside and advised that it had seen these anti bribery and corruption clauses included in the vendor registration process of other energy companies but had not seen it proposed inside an agreement before. Tuna Australia advised it was not against including them in the agreement, but asked if it was the best place for it.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>Tuna Australia requested:</p> <p>(1) More information regarding downstream effects such as discharges and seabed disturbances,</p> <p>(2) Further understanding of potential interactions during activities in the Operational Areas and exclusion zone.</p> <p>(3) Advice regarding acoustic interferences from the proposed activity.</p> <p>(4) Commented on marine spatial congestion and the need for activities to be completed in an expeditious timeframe.</p>	<p>Woodside assessed Tuna Australia’s feedback and:</p> <p>(1) Noted that routine marine discharges would be managed according to legislative and regulatory requirements and that seabed disturbance associated with cutting the wellheads would be minimal.</p> <p>(2) Confirmed Woodside conducts risk assessments for its activities in order to identify and manage environmental impacts, which includes potential interaction with recreational and commercial fishers, and that Woodside has controls in place to manage potential interactions.</p> <p>(3) Advised there are no other acoustic sources that will be used for the activity other than project vessels.</p> <p>(4) Acknowledged the co-existence of commercial fishers and Woodside operations and the importance of enabling both parties to conduct their activities,</p>	<p>(1, 2) Woodside’s environmental impact and risk assessment, performance outcomes, standard and measurement criteria are described in Section 7 of the EP, particularly for potential interaction with other marine users (Section 7.7.1).</p> <p>(3) The impact evaluation for routine acoustic emissions from project vessels, helicopters and wellhead cutting is described in Section 7.7.3 of the EP.</p> <p>(4) Not required.</p>

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<p>While feedback has been received, there were no objections or claims.</p>	<p>and confirmed that Woodside plans to undertake activities in accordance with the EP and as expeditiously as possible.</p> <p>Woodside has consulted relevant Commonwealth fishery stakeholders including AFMA, DCCEEW, CFA, ASBTIA, Tuna Australia and WAFIC.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP.)</p>	<p>Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 5.6.2 of this EP.</p> <p>Woodside considers the measures and controls in the EP address Tuna Australia's functions, interests or activities.</p> <p>No additional measures or controls are required.</p>
<p>Other non-government groups or organisations</p>		
<p>Australian Conservation Foundation (ACF)</p>		
<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed ACF advising of the proposed activity (Record of Consultation, reference 3.40) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed ACF following up on the proposed activity (Record of Consultation, reference 4.11), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional measures or controls are required.</p>
<p>Conservation Council of Western Australia (CCWA)</p>		
<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed CCWA advising of the proposed activity (Record of Consultation, reference 3.40) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed CCWA following up on the proposed activity (Record of Consultation, reference 4.11), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>

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No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Greenpeace Australia Pacific (GAP)		
Summary of information provided and record of consultation:		
<ul style="list-style-type: none"> On 24 July 2023, Woodside emailed GAP advising of the proposed activity (Record of Consultation, reference 3.40) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed GAP following up on the proposed activity (Record of Consultation, reference 4.11), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has provided a reasonable period in which to receive feedback which is consistent with the intended outcome of consultation (see Section 5.2 of this EP).</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7)of this EP).</p>	No additional measures or controls are required.
Friends of the Earth Australia		
Summary of information provided and record of consultation:		
<ul style="list-style-type: none"> On 29 November 2023, Woodside emailed Friends of the Earth Australia advising of the proposed activity (Record of Consultation, reference 4.44) and provided a Consultation Information Sheet. On 11 December 2023, Woodside emailed Friends of the Earth Australia following up on the proposed activity (Record of Consultation, reference 4.48), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.

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Maritime Union of Australia (MUA)		
<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed the MUA advising of the proposed activity (Record of Consultation, reference 3.40) and provided a Consultation Information Sheet. On 26 July 2023, the MUA thanked Woodside for providing information regarding the Julimar operations and stated it looked forward to reviewing the EP and providing relevant feedback if necessary. MUA also stated Woodside's direct consultation was very helpful in allowing MUA to respond to Woodside's planned decommissioning activities. On 1 August 2023, Woodside thanked the MUA for its response and advised Woodside did not provide copies of draft EPs but asked what additional information MUA required. On 2 August 2023, the MUA responded to advise there was no request for further information. The MUA routinely appraised the publicly available EP information on NOPSEMA's website (which was what the MUA was referring to its email). On 3 August 2023, Woodside thanked the MUA for the clarifying email. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
While feedback had been received, there were no objections or claims received.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Research institutes and local conservation groups or organisations		
University of Western Australia (UWA)		
<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed UWA advising of the proposed activity (Record of Consultation, reference 3.42) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed UWA following up on the proposed activity (Record of Consultation, reference 4.9), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Western Australian Marine Science Institution (WAMSI)		
Summary of information provided and record of consultation: <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed WAMSI advising of the proposed activity (Record of Consultation, reference 3.43) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed WAMSI following up on the proposed activity (Record of Consultation, reference 4.8), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Commonwealth Scientific and Industrial Research Organisation (CSIRO)		
Summary of information provided and record of consultation: <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed CSIRO advising of the proposed activity (Record of Consultation, reference 3.44) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed CSIRO following up on the proposed activity (Record of Consultation, reference 4.43), and provided a Consultation Information Sheet. 		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).	No additional measures or controls are required.
Australian Institute of Marine Science (AIMS)		

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<p>Summary of information provided and record of consultation:</p> <ul style="list-style-type: none"> On 24 July 2023, Woodside emailed AIMS advising of the proposed activity (Record of Consultation, reference 3.47) and provided a Consultation Information Sheet. On 7 August 2023, Woodside emailed AIMS following up on the proposed activity (Record of Consultation, reference 4.6), and provided a Consultation Information Sheet. 		
<p>Summary of Feedback, Objection or Claim</p>	<p>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</p>	<p>Inclusion in Environment Plan</p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 8.7 of this EP).</p>	<p>No additional measures or controls are required.</p>

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RECORD OF CONSULTATION

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1. Consultation – May 2022

1.1 Email sent Australian Border Force (ABF), Department of Industry, Science and Resources (DISR) (formerly DISER), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Energy, Mines, Industry Regulation and Safety (DEMIRS - formerly DMIRS), Department of Transport (DoT) and Australian Energy Producers (AEP - formerly APPEA) – 9 May 2022

Dear Stakeholder

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.2 Email sent to Australian Communications Media Authority (ACMA) (9 May 2022)

Dear ACMA

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

We note that the North Rankin-3 wellhead is located approximately 260 m from the submarine telecommunication cable that services the Woodside operated North West Shelf facilities. Woodside confirms that it has mitigation measures in place to prevent adverse impacts on the cable, including preventing dropping objects on the seafloor and there will be no anchoring of vessels. Lifting operations for the wellhead removal activities will be conducted using lift specific Permit to Work (PTW) and Job Safety Analysis (JSA) systems to manage the specific risks of that lift, including consideration of weather and sea state.

An information sheet (also on our [website](#)), and communication cable map is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.3 Email sent to Australian Fisheries Management Authority (AFMA) – 9 May 2022

Dear AFMA

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)) is attached. There are no relevant Commonwealth fisheries.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).

Schedule: Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Relevant fisheries **Commonwealth:** None
State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
 The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
 Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area
North West Shelf wellheads					
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"		
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"		
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"		WA-56-L
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"		WA-52-L
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"		WA-5-L
Dockrell-1	~110	115°46'51.526998"	-19°47'11.791002"		
Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"		
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"		
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"		

Goodwyn-4	~130	115°50'58.763472"	-19°41'33.147096"			
Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"			
Goodwyn-6	~124	115°51'16.964388"	-19°43'19.077636"			
Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"			
Haycock-1	~85	115°43'21.159300"	-19°50'53.176956"			WA-58-L
Lambert-1	~125	116°29'27.442002"	-19°27'18.163002"			WA-16-L
Lambert-5ST1	~116	116°28'45.029496"	-19°28'32.604636"			
Lady Nora-2	~75	115°37'14.440008"	-19°49'59.819988"			WA-57-L
Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"			
North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"			WA-1-L
North Rankin-2	~126	116°8'51.517500"	-19°33'51.925320"			
North Rankin-3	~126	116°10'27.158988"	-19°31'45.977016"			
North Rankin-4	~127	116°6'47.028348"	-19°35'3.576804"			
North Rankin-5	~123	116°9'33.687612"	-19°34'12.455112"			
North Rankin-6	~124	116°8'31.166880"	-19°32'40.035048"			
Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"			WA-24-L
Walcott-1	~81	116°22'21.417780"	-19°37'0.030000"			WA-11-L
Madeleine-1	~69	116°21'50.298876"	-19°38'56.550984"			
Wanaea-4	~75	116°23'48.432000"	-19°37'47.635002"			
Julimar wellheads						
Julimar East-1	~171	115°5'7.969992"	-20°6'23.209992"	Temporary 500 m radius	WA-49-L	
Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"			
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"			
Brulimar-1	~171	115°11'4.989012"	-20°0'18.264996"			
Brunello-1ST1	~151	115°10'25.358988"	-20°3'1.964016"			
Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"			

Commercial fishing implications:

Woodside has assessed potential impacts for commercial fisheries based on Fishcube, ABARES data, fishing methods and water depth. We note there are three overlapping Commonwealth managed fisheries, listed below, none of which have been active in the Operational Area in recent years.

- Southern Bluefin Tuna Fishery
- Western Tuna and Billfish Fishery
- Western Skipjack Fishery

Woodside has provided information to the fishery's representative organisation on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		

<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	<p>Wellhead proposed to be removed</p> <p>Wellhead location marked on marine charts until removal completed</p> <p>Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP</p>
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	<p>Attempted retrieval of dropped objects</p> <p>No anchoring of vessels</p>
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	<p>Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users</p> <p>Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity</p> <p>A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities</p> <p>A 1500 m radius Operational Area around each well</p> <p>Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area</p>

Unplanned Risks

<i>Hydrocarbon release</i>	Loss of hydrocarbons to the marine environment from a well or vessel collision resulting in a tank rupture	<p>Appropriate spill response plans, equipment and materials will be in place and maintained</p> <p>Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment</p>
<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species

vessels ballast water or
biofouling

Compliance with Australian biosecurity
requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at:
Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.4 Email sent to Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) – Marine Safety – 9 May 2022

Dear AHO / AMSA

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

An information sheet (also on our [website](#)), and shipping lane map is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.5 Email sent to Australian Maritime Safety Authority (AMSA) – Marine Pollution – 29 July 2022

Hi [REDACTED]

As part of Woodside's ongoing consultation for its current and planned activities, I would like to advise the Australian Maritime Safety Authority (AMSA) that Woodside is preparing the NWS & Julimar Exploration Wellhead Decommissioning Environment Plan (EP). Woodside is planning to decommission thirty-six historical exploration wellheads by removing the infrastructure from the seabed. Thirty wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-

24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L. Six wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in Julimar permit area WA-49-L.

Woodside would like to offer AMSA the opportunity to review or provide comment on the activity.

Information is presented as follows:

- A Consultation Information Sheet is available on our [website here](#), providing information on the proposed activities.
- The *NWS & Julimar Exploration Wellhead Decommissioning Oil Pollution First Strike Plan* is attached. This will form part of the approval submission in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Woodside anticipates submitting the proposed EP in September 2022 to support these activities.

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977 by **COB 9 September 2022**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Many thanks,

1.6 Email sent to Department of Climate Change, Energy, the Environment and Water Agriculture (DCCEE/DAFF - formerly the Department of Agriculture, Water and the Environment (DAWE)) – 9 May 2022

Dear DAWE

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)) is attached. There are no relevant Commonwealth fisheries.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Relevant fisheries	Commonwealth: None State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area	
North West Shelf wellheads						
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L	
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"			
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"			
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L	
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"		WA-56-L	
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"			
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"			
Dockrell-1	~110	115°46'51.526998"	-19°47'11.791002"		WA-52-L	
Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"			
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"			
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"			
Goodwyn-4	~130	115°50'58.763472"	-19°41'33.147096"			
Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"			
Goodwyn-6	~124	115°51'16.964388"	-19°43'19.077636"			
Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"			
Haycock-1	~85	115°43'21.159300"	-19°50'53.176956"			WA-58-L
Lambert-1	~125	116°29'27.442002"	-19°27'18.163002"			WA-16-L
Lambert-5ST1	~116	116°28'45.029496"	-19°28'32.604636"			
Lady Nora-2	~75	115°37'14.440008"	-19°49'59.819988"			WA-57-L
Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"			
North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"		WA-1-L	
North Rankin-2	~126	116°8'51.517500"	-19°33'51.925320"			
North Rankin-3	~126	116°10'27.158988"	-19°31'45.977016"			
North Rankin-4	~127	116°6'47.028348"	-19°35'3.576804"			
North Rankin-5	~123	116°9'33.687612"	-19°34'12.455112"			
North Rankin-6	~124	116°8'31.166880"	-19°32'40.035048"			
Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"	WA-24-L		
Walcott-1	~81	116°22'21.417780"	-19°37'0.030000"	WA-11-L		
Madeleine-1	~69	116°21'50.298876"	-19°38'56.550984"			
Wanaea-4	~75	116°23'48.432000"	-19°37'47.635002"			
Julimar wellheads						
Julimar East-1	~171	115°5'7.969992"	-20°6'23.209992"	Temporary 500 m radius	WA-49-L	
Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"			
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"			
Brulimar-1	~171	115°11'4.989012"	-20°0'18.264996"			
Brunello-1ST1	~151	115°10'25.358988"	-20°3'1.964016"			
Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"			

Commercial fishing implications:

Woodside has assessed potential impacts for commercial fisheries based on Fishcube, ABARES data, fishing methods and water depth. We note there are three overlapping Commonwealth managed fisheries, listed below, none of which have been active in the Operational Area in recent years.

- Southern Bluefin Tuna Fishery
- Western Tuna and Billfish Fishery
- Western Skipjack Fishery

Woodside has provided information to the fishery's representative organisation on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.

Biosecurity:

With respect to the biosecurity matters, please note the following information below:

Environment description:

The thirty North West Shelf wellheads are located around 14 km northeast of the Multiple Use Zone Montebello Australian Marine Park from the closest wellhead (Lowendal-1) and around 90 km northeast of the Habitat protection zone of the Dampier Australian Marine Park from the closest wellhead (Madeleine-1). The wells are located in a water depth of approximately 69 - 133 m.

The six Julimar wellheads are located around 8 km from northeast Montebello Australian Marine Parks from the closest wellhead (Balnaves Deep-1). The wells are located in a water depth of approximately 130 – 170 m.

The thirty-six wellheads (total) and associated infrastructure are proposed to be removed. The sediments in the area are expected to be broadly consistent with those in the NWS province and are relatively homogenous and typically dominated by sands and a small portion of gravel. However, some wells are located within a Key Ecological Feature. These are described below:

Key Ecological Feature	Wells with overlap
Ancient Coastline with 125 m depth contour	Balnaves Deep-1, Goodwyn-1, Goodwyn-2, Goodwyn-3, Goodwyn-4, Goodwyn-5, Goodwyn-6, North Rankin-2, North Rankin-3, North Rankin-4, North Rankin-5, North Rankin-6, Lambert-1, Egret-1
Glomar Shoals	Angel-3,

Potential IMS risk

IMS mitigation management

Introduction or translocation and establishment of invasive marine species to the area via biofouling on vessels or within vessels ballast water systems.

Vessels are required to comply with the Australian Biosecurity Act 2015, specifically the Australian Ballast Water Management Requirements (as defined under the Biosecurity Act 2015) (aligned with the International Convention for the Control and Management of Ships' Ballast Water and Sediments) to prevent introducing IMS.

Vessels will be assessed and managed to prevent the introduction of invasive marine species in accordance with Woodside's Invasive Marine Species Management Plan.

Woodside's Invasive Marine Species Management Plan includes a risk assessment process that is applied to vessels undertaking Activities. Based on the outcomes of each IMS risk assessment, Management measures commensurate with the risk (such as the treatment of internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.7 Email sent to Department of Defence (DoD) – 9 May 2022

Dear Department of Defence

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

An information sheet (also on our [website](#)), and defence zone map is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.8 Email sent to Director of National Parks (DNP) – 9 May 2022

Dear Director of National Parks

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical

internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

We note Australian Government Guidance on consultation activities and confirm that:

- The proposed activities are outside the boundaries of a proclaimed Australian Marine Parks, with the North West Shelf wellheads located approximately 14 km northeast of the Multiple Use Zone Montebello Australian Marine Park from the closest wellhead (Lowendal-1). The Julimar wellheads are located approximately 8 km from northeast Montebello Australian Marine Parks from the closest wellhead (Balnaves Deep-1).
- We have assessed potential risks to Australian Marine Parks (AMPs) in the development of the proposed Environment Plan and believe that there are no credible risks as part of planned activities that have potential to impact the values of the Marine Parks.
- The worst-case credible spill scenario assessed in this EP is the remote likelihood event of a vessel collision resulting a spill of marine diesel to the marine environment. Through review of hydrocarbon spill modelling, and with consideration of a 10 ppb dissolved and entrained hydrocarbon threshold, the following AMPs may be contacted in the event of a spill:
 - Argo-Rowley Terrace
 - Gascoyne
 - Montebello
 - Ningaloo
- A Commonwealth Government-approved oil spill response plan will be in place for the duration of the activities, which will include notification to relevant agencies and organisations as to the nature and scale of the event, as soon as practicable following an occurrence. The Director of National Parks will be advised if an environmental incident occurs that may impact on the values of the Marine Park.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).

- Schedule:** Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
- Duration:** Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
- Exclusionary/Cautious Zone:** 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
- Vessels:** Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.9 Email sent to Department of Primary Industries and Regional Development (DPIRD) – 9 May 2022

Dear [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the

environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Relevant fisheries	Commonwealth: None State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels:

Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
 The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
 Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area	
North West Shelf wellheads						
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L	
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"			
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"			
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L	
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"			
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"		WA-56-L	
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"		WA-52-L	
Dockrell-1	~110	115°46'51.526998"	-19°47'11.791002"		WA-5-L	
Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"			
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"			
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"			
Goodwyn-4	~130	115°50'58.763472"	-19°41'33.147096"			
Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"			
Goodwyn-6	~124	115°51'16.964388"	-19°43'19.077636"			
Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"			
Haycock-1	~85	115°43'21.159300"	-19°50'53.176956"			WA-58-L
Lambert-1	~125	116°29'27.442002"	-19°27'18.163002"			WA-16-L
Lambert-5ST1	~116	116°28'45.029496"	-19°28'32.604636"		WA-57-L	
Lady Nora-2	~75	115°37'14.440008"	-19°49'59.819988"			
Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"		WA-1-L	
North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"			
North Rankin-2	~126	116°8'51.517500"	-19°33'51.925320"			
North Rankin-3	~126	116°10'27.158988"	-19°31'45.977016"			
North Rankin-4	~127	116°6'47.028348"	-19°35'3.576804"			
North Rankin-5	~123	116°9'33.687612"	-19°34'12.455112"			
North Rankin-6	~124	116°8'31.166880"	-19°32'40.035048"			
Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"		WA-24-L	
Walcott-1	~81	116°22'21.417780"	-19°37'0.030000"	WA-11-L		
Madeleine-1	~69	116°21'50.298876"	-19°38'56.550984"			
Wanaea-4	~75	116°23'48.432000"	-19°37'47.635002"			
Julimar wellheads						
Julimar East-1	~171	115°5'7.969992"	-20°6'23.209992"		WA-49-L	

Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"	Temporary 500 m radius
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"	
Brulimar-1	~171	115°11'4.989012"	-20°0'18.264996"	
Brunello-1ST1	~151	115°10'25.358988"	-20°3'1.964016"	
Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"	

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		
<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	Attempted retrieval of dropped objects No anchoring of vessels
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities A 1500 m radius Operational Area around each well

Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area

Unplanned Risks

<i>Hydrocarbon release</i>	Loss of hydrocarbons to the marine environment from a well or vessel collision resulting in a tank rupture	Appropriate spill response plans, equipment and materials will be in place and maintained Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment
<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via vessels ballast water or biofouling	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species Compliance with Australian biosecurity requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.10 Email sent to Department of Transport (DoT) – 29 July 2022

Hi [REDACTED]

As part of Woodside's ongoing consultation for its current and planned activities, I would like to advise WA Department of Transport (DoT) that Woodside is preparing the NWS & Julimar Exploration Wellhead Decommissioning Environment Plan (EP). Woodside is planning to decommission thirty-six historical exploration wellheads by removing the infrastructure from the seabed. Thirty wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L. Six wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in Julimar permit area WA-49-L.

Woodside would like to offer DoT the opportunity to review or provide comment on the activity.

Information is presented as follows:

- A Consultation Information Sheet is available on our [website here](#), providing information on the proposed activities.
- The *NWS & Julimar Exploration Wellhead Decommissioning Oil Pollution First Strike Plan* is attached. This will form part of the approval submission in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

- In the table below, as requested in the *Offshore Petroleum Industry Guidance Note* (July 2020) and from recent engagement activities between DoT and Woodside, responses to the information requirements in a succinct summary and source of information.

Woodside anticipates submitting the proposed EP in September 2022 to support these activities.

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977 by **COB 9 September 2022**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Many thanks,

Information Requested in the Offshore Petroleum Industry Guidance Note (July 2020)	Information Provided & Reference
Description of activity, including the intended schedule, location (including coordinates) , distance to nearest landfall and map.	Included in the consultation information sheet
Worst case spill volumes.	Included in Appendix A of the First Strike Plan
Known or indicative oil type/properties.	Included in Appendix A of the First Strike Plan
Amenability of oil to dispersants and window of opportunity for dispersant efficacy.	Dispersant is not deemed to be suitable for a marine diesel oil (MDO) spill.

<p>Description of existing environment and protection priorities.</p>	<p>Included in Section 3 of the First Strike Plan</p>
<p>Details of the environmental risk assessment related to marine oil pollution - describe the process and key outcomes around risk identification, risk analysis, risk evaluation and risk treatment. For further information see the Oil Pollution Risk Management Information Paper (NOPSEMA 2021).</p>	<p>Unplanned loss of containment events from the Petroleum Activities Program have been identified during the risk assessment process (presented in Section 6 of the EP). Further descriptions of risk, impacts and mitigation measures (which are not related to hydrocarbon preparedness and response) are provided in Section 6 of the EP. Three unplanned events or credible spill scenario for the Petroleum Activities Program have been selected as representative across types, sources and incident/response levels, up to and including the WCCS. Table 2-1 of the OSPRMA and Appendix A of the First Strike Plan present the credible scenarios for the Petroleum Activities Program. One worst-case credible scenarios (CS-01 (Julimar)) has been used for response planning purposes for the activity as all other scenarios are of a lesser scale and extent. By demonstrating capability to meet and manage an event of this size and timescale, Woodside assumes relevant scenarios that are smaller in nature and scale can also be managed by the same capability. Response performance outcomes have been defined based on a response to the WCCS.</p>
<p>Outcomes of oil spill trajectory modelling, including predicted times to enter State waters and contact shorelines.</p>	<p>Credible Scenario-01 (Julimar) (CS-01 (Julimar)) – Surface release of Marine Diesel Oil after a vessel fuel tank rupture near the Balnaves Deep-1 well Instantaneous release of 500 m³. 5% residue of 25 m³ Minimum time to shoreline contact (above 100 g/m²) in days <i>No contact at response thresholds</i></p> <p>Stochastic modelling for the above scenario was undertaken by RPS in April 2022. The below figure shows the smoothed EMBA of floating oil concentrations at or above 1 g/m²</p>

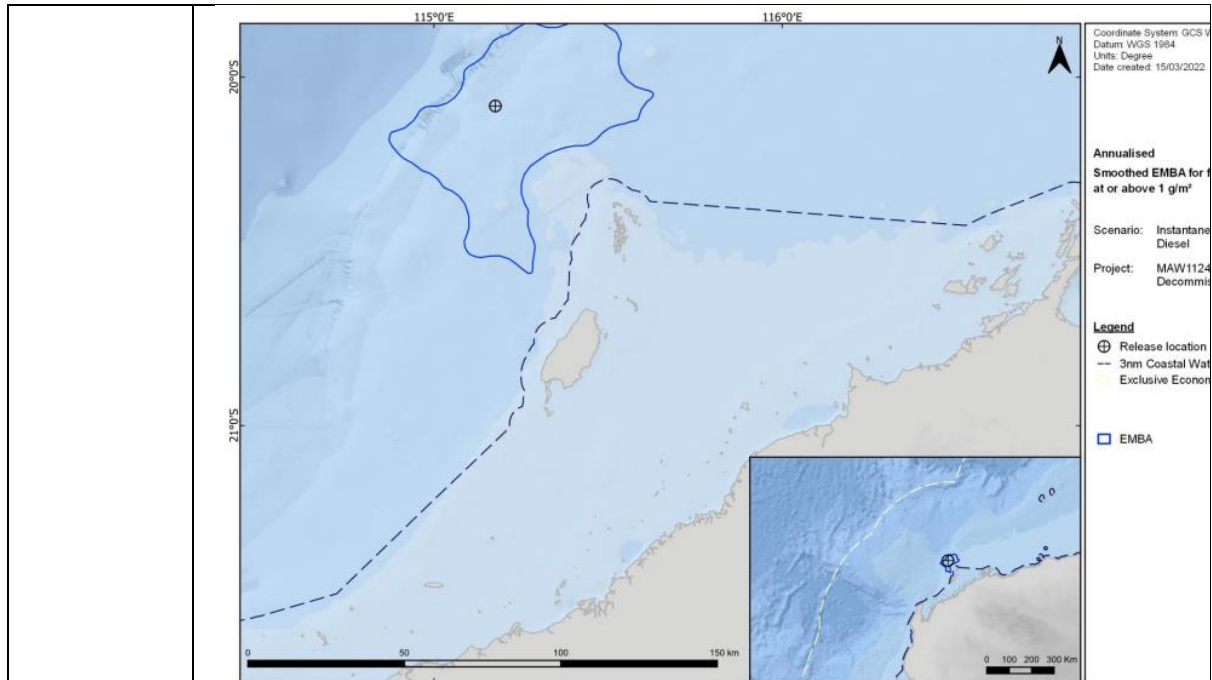


Figure 3.10 Predicted annualised smoothed EMBA of floating oil concentrations at or above 1 g/m² for Scenario 1, an instantaneous surface release

<p>Details on initial response actions and key activation timeframes.</p>	<p>Included in Section 2 of the First Strike Plan</p>
<p>Potential Incident Control Centre arrangements.</p>	<p>Included in Appendix D and E of the First Strike Plan</p>
<p>Potential staging areas / Forward Operating Base.</p>	<p>A Forward Operating Base can be established at Exmouth and/ or Dampier.</p>
<p>Details on response strategies.</p>	<p>Included in Section of the First Strike Plan</p>
<p>Use of DoT equipment resources</p>	<p>Woodside has access to its own and contracted stockpiles of response equipment and acknowledges that potential use of DoT resources cannot be assumed and is at the discretion of DoT.</p>
<p>Details and diagrams on proposed IMT structure including integration of DoT arrangements</p>	<p>Included in Appendix D and E of the First Strike Plan</p>

<p>ts as per this IGN.</p>	<ul style="list-style-type: none"> • Level 1 Response – one Level 1 First Strike drill must be conducted during the activity. For campaigns with an operational duration of greater than one month this will occur within the first two weeks of commencing the activity and then at least every 6 month hire period thereafter. • Level 2 Response – Level 2 Emergency Management exercises are relevant to activities with an operational duration of one month or greater. At least one Emergency Management exercise per vessel per campaign must be conducted within the first month of commencing the activity and then at every 6 month hire period thereafter, where applicable based on duration. • Level 3 Response – the number of CMT exercises conducted each year is determined by the Chief Executive Officer, in consultation with the Vice President of Security and Emergency Management. <p>Testing of Oil Spill Response Arrangements</p> <p>Woodside’s arrangements for spill response are common across its Australian operating assets and activities to ensure the controls are consistent. The overall objective of testing these arrangements is to ensure that Woodside maintains an ability to respond to a hydrocarbon spill, specifically to:</p> <ul style="list-style-type: none"> • Ensure relevant responders, contractors and key personnel understand and practise their assigned roles and responsibilities. • Test response arrangements and actions to validate response plans. • Ensure lessons learned are incorporated into Woodside’s processes and procedures and improvements are made where required. <p>Woodside’s Testing of Arrangements Schedule aligns with international good practice for spill preparedness and response management; the testing is compatible with the IPIECA Good Practice Guide and the Australian Institute for Disaster Resilience (AIDR) Australian Emergency Management Arrangements Handbook. If a spill occurs, enacting these arrangements will underpin Woodside’s ability to implement a response across its petroleum activities.</p> <p>The hydrocarbon spill arrangements included within the schedule are tested against Woodside’s regulatory commitments. Each arrangement has a support agency/company and an area to be tested (e.g. capability, equipment and personnel). For example, an arrangement could be to test Woodside’s personnel capability for conducting scientific monitoring, or the ability of the Australian Marine Oil Spill Centre to provide response personnel and equipment.</p> <p>If new response arrangements are introduced, or existing arrangements significantly amended, additional testing is undertaken accordingly. Additional activities or activity locations are not anticipated to occur; however, if they do, testing of relevant response arrangements will be undertaken as soon as practicable.</p> <p>In addition to the testing of response capability within the schedule, up to eight formal exercises are planned annually, across Woodside, to specifically test arrangements for responding to a hydrocarbon spill to the marine environment. Some arrangements may be tested across multiple exercises (e.g. critical arrangements) or via other ‘additional assurance’ methods outside the formal Testing of Arrangements Schedule that also constitute sufficient evidence of testing of arrangements (e.g. audits, no-notice drills, internal exercises, assurance drills).</p>
<p>Additional comments</p>	<p>Please note some of the links in the document are still being finalised, and as such may show a reference error in the attached version.</p>

1.11 Letter sent to Mackerel Managed Fishery (Area 2) licence holders – 9 May 2022

Please direct all responses/queries to:
Woodside Feedback
T: 1800 442 977
E: Feedback@woodside.com.au

9 May 2022

Dear Mackerel Managed Fishery

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.


We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by 23 June 2022.



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Activity:

- Summary:** 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
- Location:** **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
- Schedule:** Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
- Duration:** Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
- Relevant fisheries** **Commonwealth:** None
State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery
- Exclusionary/Cautious Zone:** 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
- Vessels:** Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area
North West Shelf wellheads					
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"		
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"		
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"		WA-56-L
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"		WA-52-L
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"		WA-5-L
Dockrell-1	~110	115°46'51.526998"	-19°47'11.791002"		
Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"		
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"		
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"		

Goodwyn-4	~130	115°50'58.763472"	-19°41'33.147096"		
Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"		
Goodwyn-6	~124	115°51'16.964388"	-19°43'19.077636"		
Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"		
Haycock-1	~85	115°43'21.159300"	-19°50'53.176956"		WA-58-L
Lambert-1	~125	116°29'27.442002"	-19°27'18.163002"		WA-16-L
Lambert-5ST1	~116	116°28'45.029496"	-19°28'32.604636"		
Lady Nora-2	~75	115°37'14.440008"	-19°49'59.819988"		WA-57-L
Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"		
North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"		
North Rankin-2	~126	116°8'51.517500"	-19°33'51.925320"		
North Rankin-3	~126	116°10'27.158988"	-19°31'45.977016"		WA-1-L
North Rankin-4	~127	116°6'47.028348"	-19°35'3.576804"		
North Rankin-5	~123	116°9'33.687612"	-19°34'12.455112"		
North Rankin-6	~124	116°8'31.166880"	-19°32'40.035048"		
Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"		WA-24-L
Walcott-1	~81	116°22'21.417780"	-19°37'0.030000"		
Madeleine-1	~69	116°21'50.298876"	-19°38'56.550984"		WA-11-L
Wanaea-4	~75	116°23'48.432000"	-19°37'47.635002"		
Julimar wellheads					
Julimar East-1	~171	115°57.969992"	-20°6'23.209992"		
Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"	Temporary 500 m radius	WA-49-L
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"		
Brulimar-1	~171	115°11'4.989012"	-20°0'18.264996"		
Brunello-1ST1	~151	115°10'25.358988"	-20°3'1.964016"		
Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"		

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		
<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and	All routine marine discharges will be managed according to legislative and regulatory

	bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	requirements and Woodside's Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	Attempted retrieval of dropped objects No anchoring of vessels
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities A 1500 m radius Operational Area around each well Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area

Unplanned Risks

<i>Hydrocarbon release</i>	Loss of hydrocarbons to the marine environment from a well or vessel collision resulting in a tank rupture	Appropriate spill response plans, equipment and materials will be in place and maintained Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment
<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via vessels ballast water or biofouling	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species Compliance with Australian biosecurity requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)

for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)*.

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

Woodside Feedback



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f t in v @

Attached: Consultation Information Sheet, Historical Exploration Wellhead Decommissioning Information Sheet, Fisheries map

1.12 Email sent to Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery licence holders – 9 May 2022

Dear Fishery Stakeholders

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).

Schedule: Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Relevant fisheries **Commonwealth:** None
State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area
North West Shelf wellheads					

Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L	
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Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"			
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North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"			
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Julimar East-1	~171	115°5'7.969992"	-20°6'23.209992"	Temporary 500 m radius	WA-49-L	
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Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		

<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	Attempted retrieval of dropped objects No anchoring of vessels
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities A 1500 m radius Operational Area around each well Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area

Unplanned Risks

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<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species

vessels ballast water or
biofouling

Compliance with Australian biosecurity
requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at:
Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.13 Email sent to PE Wheatstone, Kyushu Electric Wheatstone, Shell Australia, Mobil Australia Resources Company, SapuraOMV Upstream, Finder No 9, Fugro Exploration, Santos NA Energy Holdings, Santos WA Northwest, BP Developments Australia, Lightmark Enterprises, KUFPEC Australia (Wheatstone lagoon) – 9 May 2022

Dear Titleholder

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

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Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

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Activity:

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The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

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Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.14 Email sent to Chevron Australia and Chevron (TAPL), Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon via Chevron Australia – 9 May 2022

Dear [REDACTED] and [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

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A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

As discussed, we would be grateful if you could please forward this consultation information to your Joint Venture participants Chevron (TAPL), Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon for feedback. For your awareness, we have provided consultation information directly to Shell Australia, Mobil Australia Resources Company, KUFPEC Australia (Wheatstone lagoon), PE Wheatstone and Kyushu Electric Wheatstone.

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
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Schedule: Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.15 Email sent to Commonwealth Fisheries Association (CFA), Australian Southern Bluefin Tuna Industry Association (ASBTIA), Tuna Australia – 9 May 2022

Dear Fisheries Stakeholder

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)) is attached. There are no relevant Commonwealth fisheries.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).

Schedule: Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Relevant fisheries **Commonwealth:** None
State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area	
North West Shelf wellheads						
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L	
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"			
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"			
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L	
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"		WA-56-L	
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"			
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"		WA-52-L	
Dockrell-1	~110	115°46'51.526998"	-19°47'11.791002"		WA-5-L	
Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"			
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"			
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"			
Goodwyn-4	~130	115°50'58.763472"	-19°41'33.147096"			
Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"			
Goodwyn-6	~124	115°51'16.964388"	-19°43'19.077636"			
Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"			
Haycock-1	~85	115°43'21.159300"	-19°50'53.176956"			WA-58-L
Lambert-1	~125	116°29'27.442002"	-19°27'18.163002"			WA-16-L
Lambert-5ST1	~116	116°28'45.029496"	-19°28'32.604636"		WA-57-L	
Lady Nora-2	~75	115°37'14.440008"	-19°49'59.819988"			
Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"		WA-1-L	
North Rankin-1	~122	116°7'35.519844"	-19°35'51.910008"			
North Rankin-2	~126	116°8'51.517500"	-19°33'51.925320"			
North Rankin-3	~126	116°10'27.158988"	-19°31'45.977016"			
North Rankin-4	~127	116°6'47.028348"	-19°35'3.576804"			
North Rankin-5	~123	116°9'33.687612"	-19°34'12.455112"			
North Rankin-6	~124	116°8'31.166880"	-19°32'40.035048"	WA-24-L		
Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"			
Walcott-1	~81	116°22'21.417780"	-19°37'0.030000"	WA-11-L		
Madeleine-1	~69	116°21'50.298876"	-19°38'56.550984"			
Wanaea-4	~75	116°23'48.432000"	-19°37'47.635002"			
Julimar wellheads						
Julimar East-1	~171	115°5'7.969992"	-20°6'23.209992"	Temporary 500 m radius	WA-49-L	
Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"			
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"			
Brulimar-1	~171	115°11'4.989012"	-20°0'18.264996"			
Brunello-1ST1	~151	115°10'25.358988"	-20°3'1.964016"			
Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"			

Commercial fishing implications:

Woodside has assessed potential impacts for commercial fisheries based on Fishcube, ABARES data, fishing methods and water depth. We note there are three overlapping Commonwealth managed fisheries, listed below, none of which have been active in the Operational Area in recent years.

- Southern Bluefin Tuna Fishery
- Western Tuna and Billfish Fishery
- Western Skipjack Fishery

Woodside has provided information to the fishery's representative organisation on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		
<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	Attempted retrieval of dropped objects No anchoring of vessels
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities

A 1500 m radius Operational Area around each well

Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area

Unplanned Risks

<i>Hydrocarbon release</i>	Loss of hydrocarbons to the marine environment from a well or vessel collision resulting in a tank rupture	Appropriate spill response plans, equipment and materials will be in place and maintained Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment
<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via vessels ballast water or biofouling	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species Compliance with Australian biosecurity requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.16 Email sent to Pearl Producers Australia (PPA) – 9 May 2022

Dear [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached.

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Relevant fisheries	Commonwealth: None State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Wellhead locations:

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Exclusion Zones	Permit Area	
North West Shelf wellheads						
Angel-1	~80	116°35'52.544508"	-19°30'14.900868"	Temporary 500 m radius	WA-3-L	
Angel-2	~87	116°39'29.500956"	-19°27'53.638236"			
Angel-3	~69	116°37'47.253576"	-19°32'26.030760"			
Cossack-1	~82	116°29'50.554998"	-19°33'17.129004"		WA-9-L	
Cossack-6ST1	~79	116°29'25.228002"	-19°34'2.127000"			
Dixon-1	~85	115°47'16.468944"	-19°50'54.962664"		WA-56-L	
Egret-1	~118	116°20'54.365892"	-19°30'18.451908"		WA-52-L	
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Goodwyn-1	~126	115°53'49.169004"	-19°41'33.488988"			
Goodwyn-2	~133	115°51'56.302416"	-19°39'47.735928"			
Goodwyn-3	~120	115°52'47.424684"	-19°44'5.487216"			
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Goodwyn-5	~128	115°53'49.805988"	-19°40'37.089012"			
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Tidepole-1	~110	115°53'12.382008"	-19°46'3.442008"			
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Lowendal-1	~85	115°38'6.460800"	-19°52'43.557924"			
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Rankin-1	~93	115°44'39.312996"	-19°47'53.085984"	WA-24-L		
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Julimar South East-1	~156	115°3'58.889988"	-20°9'7.049988"		
Grange-1-WA	~177	138°30'9.879552"	-34°53'2.776092"		
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Balnaves Deep-1	~135	115°10'34.191984"	-20°4'58.212984"		

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		
<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable
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Unplanned Risks

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Feedback:

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Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.17 Email sent to Western Australian Fishing Industry Council (WAFIC) – 9 May 2022

Dear [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the

environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap with the activity area, assessment of government fishing effort data (including Fishcube and ABARES) from recent years, fishing methods and water depth.

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Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned actives are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
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Relevant fisheries	Commonwealth: None State: Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels:

Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.

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Commercial fishing implications:

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- Southern Bluefin Tuna Fishery
- Western Tuna and Billfish Fishery
- Western Skipjack Fishery

Woodside has provided information to the fishery’s representative organisation on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk	Risk Description	Mitigation And / Or Management Measures
Planned		
<i>Physical presence of infrastructure</i>	Physical presence of infrastructure on seafloor causing interference or displacement	Wellhead proposed to be removed Wellhead location marked on marine charts until removal completed Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP
<i>Marine discharges</i>	Discharges from the operation of project vessels may include sewage, grey water, drain and bilge water, cooling water and brine. These discharges may result in a localised short-term reduction in water quality however they will be rapidly diluted and dispersed in the water column	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside’s Environmental Performance Standards where applicable
<i>Seabed disturbance</i>	Disturbance to the seabed from removal activities	Attempted retrieval of dropped objects No anchoring of vessels
<i>Vessel interaction</i>	The presence of vessels may preclude other marine users from access to the area	Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-

location and any exclusion zones prior to commencement of the activity

A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities

A 1500 m radius Operational Area around each well

Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area

Unplanned Risks

<i>Hydrocarbon release</i>	Loss of hydrocarbons to the marine environment from a well or vessel collision resulting in a tank rupture	Appropriate spill response plans, equipment and materials will be in place and maintained Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment
<i>Invasive Marine Species</i>	Introduction or translocation and establishment of invasive marine species to the area via vessels ballast water or biofouling	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species Compliance with Australian biosecurity requirements and guidance

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.18 Email sent to Karratha Community Liaison Group (CLG) – 9 May 2022

Dear Karratha Community Liaison Group

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical

internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary: 36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location: **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).

Schedule: Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.

Duration: Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.

Exclusionary/Cautious Zone: 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Vessels: Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.19 Email sent to Karratha and District Chamber of Commerce and Industry (KDCCI) – 9 May 2022

Dear [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Woodside is consulting the KDCCI individually and as a member of the Karratha Community Liaison Group.

Please provide your views by **23 June 2022**.

Activity:

Summary:

36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

- Location:** **North West Shelf wellheads:** ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1).
Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
- Schedule:** Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
- Duration:** Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
- Exclusionary/Cautious Zone:** 1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
- Vessels:** Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel.
The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.
Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.20 Email sent to City of Karratha – 9 May 2022

Dear [REDACTED]

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Woodside is consulting the City of Karratha individually and as a member of the Karratha Community Liaison Group.

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.21 Email sent to Yamatji Marlpa Aboriginal Corporation – 9 May 2022

Dear Yamatji Marlpa Aboriginal Corporation,

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Please provide your views by **23 June 2022**.

Activity:

Summary:

36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:

If you have any feedback on these activities, please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.22 Email sent to Ngarluma Yindjibarndi Foundation Ltd – 9 May 2022

Dear [REDACTED],

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical

internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

Please be advised that 18 North West Shelf and two Julimar wells have been accepted by the relevant regulator as permanently plugged. The permanent plugs prevent hydrocarbon release to the environment. The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet is also available on our [website](#).

Please also see attached Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions. The Information Sheet is also available on our [website](#).

Woodside is consulting the Ngarluma Yindjibarndi Foundation Ltd individually and as a member of the Karratha Community Liaison Group.

Please provide your views by **23 June 2022**.

Activity:

Summary:	36 wellheads and associated infrastructure to be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.
Location:	North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeliene-1). Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)).
Schedule:	Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints.
Duration:	Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well. The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025.
Exclusionary/Cautious Zone:	1500 m radius Operational Area around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.
Vessels:	Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed. Vessels will operate 24 hours per day for the duration of the activities.

Feedback:


If you have any feedback on these activities, please respond to Woodside at:
Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by **23 June 2022**.

1.23 Woodside Consultation Information Sheet (sent to all relevant persons) – 9 May 2022



STAKEHOLDER CONSULTATION

INFORMATION SHEET

May 2022

NORTH WEST SHELF AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

CANARVON BASIN, NORTH-WEST AUSTRALIA

Proposed activity

Woodside is planning to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 - 170 m water depth in Julimar permit area WA-49-L.

The 36 wellheads (listed in **Table 1**) are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Vessels

Removal and recovery will be completed from either an inspection, maintenance and repair (IMR) vessel or a heavy well intervention semisubmersible vessel, which may be supported by a general support vessel. The vessels will operate on dynamic positioning (DP) and will not anchor/moor on the seabed.

Vessels will operate 24 hours per day for the duration of the activities. The duration of these activities is subject to change due to project schedule requirements, vessel availability, weather or unforeseen circumstances. Removal and recovery activities are expected to take 3 days per well, however could take up to 10 days per well.

Communications with mariners

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements.

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

The wellheads will continue to be marked on navigational charts until they are removed.

Plug for abandonment

Eighteen (18) of the North West Shelf wells and two of the Julimar wells have been accepted by the relevant regulator as permanently plugged. Plugging and abandonment (P&A) activities for these wells occurred between 1969 and 2008 and between 2007 and 2011 respectively. The permanent plugs prevent hydrocarbon release to the environment

The outstanding P&A requirements for the remaining 16 wells are considered to be administrative only and all wells should be considered P&A for the purposes of this EP. Should acceptance not be achieved, and further P&A activities be required, the P&A of these wells will be the subject of future approvals. These wellheads will remain *in situ* until the wells are approved for abandonment.

Decommissioning assessment

The wellhead removal activities will be managed under the North West Shelf and Julimar Exploration Wellhead Environment Plan (EP).

Woodside has undertaken a comprehensive assessment of decommissioning options for these wellheads considering water depth, interaction with other marine users, previous removal attempts, relevant international and Australian legislation and standards and a comparison of the impacts and risks associated with executing feasible decommissioning options. The assessment concluded removal is the preferred decommissioning option for these wells.

In preparing the EP, our intent is to minimise environmental and social impacts associated with the proposed activities, and we are seeking any interest or comments you may have to inform our decision making.

Joint Ventures

Woodside Energy Ltd is operator on behalf of the North West Shelf Joint Venture. The participants in the North West Shelf Joint Venture are BHP Petroleum (NWS) Pty Ltd, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIM) Pty Ltd, Shell Australia Pty Ltd, Woodside Energy Ltd and CNOOC NWS Private Limited.

Woodside Energy Julimar Pty Ltd is operator on behalf of the Julimar Joint Venture with joint venture partner KUFPEC Australia (Julimar) Pty Ltd.

We welcome your feedback by 24 June 2022

1 North West Shelf and Julimar Exploration Wellhead Environment Plan | May 2022

Table 1. Activity summary for all wellheads

Exploration wellhead activities - State	
Infrastructure	<ul style="list-style-type: none"> 36 exploration wellheads comprising of mild steel with small amounts (-250 - 750 g) of elastomeric materials used within seal components Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less
Commencement date	<ul style="list-style-type: none"> Planned activities are expected to be completed between 2023-2025. Timing of removal and recovery is subject to approvals, vessel availability and weather constraints
Approximate estimated duration	<ul style="list-style-type: none"> Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well The activity is planned to be completed in either a single campaign or on an ad hoc basis between 2023 and 2025
Exclusion zones	<ul style="list-style-type: none"> Temporary 500 m exclusion zone around the IMR/heavy well intervention semisubmersible vessel to manage vessel movements
Vessels	<ul style="list-style-type: none"> Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel may be used for infrastructure and recovery Potential for additional general support vessel
Distance to nearest town	<ul style="list-style-type: none"> North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madelaine-1) Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)
Distance to nearest marine park/nature reserve	<ul style="list-style-type: none"> North West Shelf wellheads: ~14 km northeast of the Multiple Use Zone Montebello Australian Marine Park from the closest wellhead (Lowendal-1) and ~90 km northeast of the Habitat protection zone of the Dampier Australian Marine Park from the closest wellhead (Madelaine-1) Julimar wellheads: ~8 km from northeast Montebello Australian Marine Parks from the closest wellhead (Balnaves Deep-1)

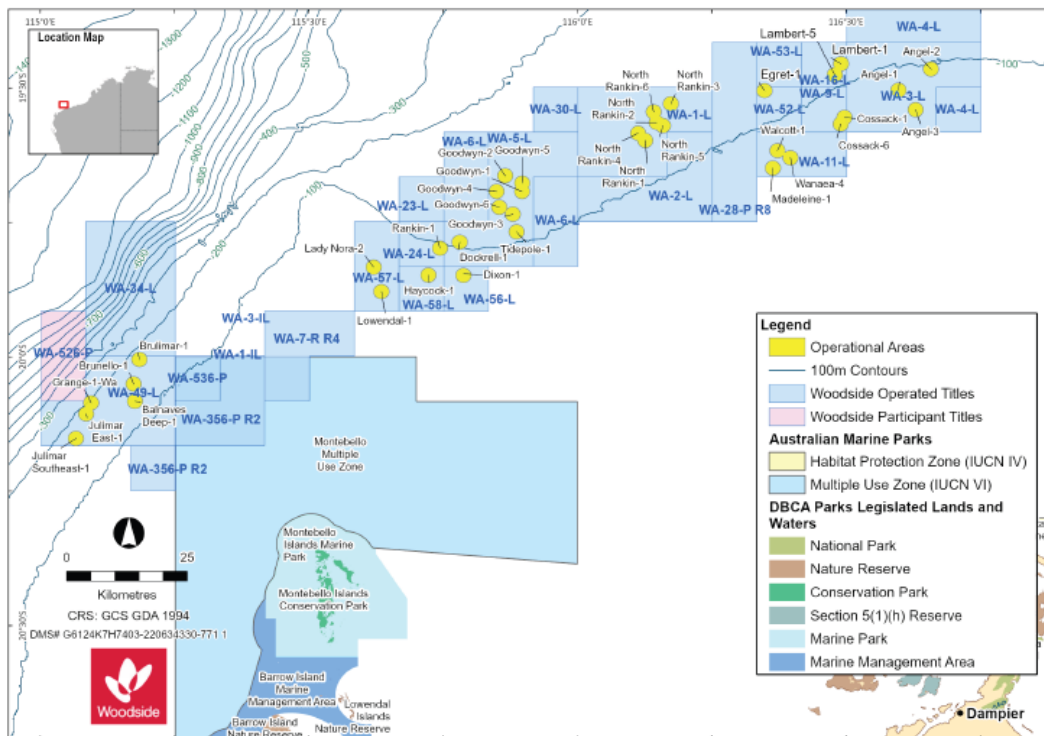


Figure 1. North West Shelf and Julimar Wellhead Locations

Table 2. Approximate Locations

Wellhead	Approx. Water depth (m)	Latitude	Longitude	Permit Area
North West Shelf Wellheads				
Angel-1	-80	116°35'52.544508"	-19°30'14.900868"	WA-3-L
Angel-2	-87	116°39'29.500956"	-19°27'53.638236"	
Angel-3	-69	116°37'47.253576"	-19°32'26.030760"	
Cossack-1	-82	116°29'50.554998"	-19°33'17.129004"	WA-9-L
Cossack-6ST1	-79	116°29'25.228002"	-19°34'2.127000"	
Dixon-1	-85	115°47'16.468944"	-19°50'54.962664"	WA-56-L
Egret-1	-118	116°20'54.365892"	-19°30'18.451908"	WA-52-L
Dockrell-1	-110	115°46'51.526998"	-19°47'11.791002"	WA-5-L
Goodwyn-1	-126	115°53'49.169004"	-19°41'33.488988"	
Goodwyn-2	-133	115°51'56.302416"	-19°39'47.735928"	
Goodwyn-3	-120	115°52'47.424684"	-19°44'5.487216"	
Goodwyn-4	-130	115°50'58.763472"	-19°41'33.147096"	
Goodwyn-5	-128	115°53'49.805988"	-19°40'37.089012"	
Goodwyn-6	-124	115°51'16.964388"	-19°43'19.077636"	
Tidepole-1	-110	115°53'12.382008"	-19°46'3.442008"	WA-58-L
Haycock-1	-85	115°43'21.159300"	-19°50'53.176956"	
Lambert-1	-125	116°29'27.442002"	-19°27'18.163002"	WA-16-L
Lambert-5ST1	-116	116°28'45.029496"	-19°28'32.604636"	
Lady Nora-2	-75	115°37'14.440008"	-19°49'59.819988"	WA-57-L
Lowendal-1	-85	115°38'6.460800"	-19°52'43.557924"	
North Rankin-1	-122	116°7'35.519844"	-19°35'51.910008"	WA-1-L
North Rankin-2	-126	116°8'51.517500"	-19°33'51.925320"	
North Rankin-3	-126	116°10'27.158988"	-19°31'45.977016"	
North Rankin-4	-127	116°6'47.028348"	-19°35'3.576804"	
North Rankin-5	-123	116°9'33.687612"	-19°34'12.455112"	
North Rankin-6	-124	116°8'31.166880"	-19°32'40.035048"	
Rankin-1	-93	115°44'39.312996"	-19°47'53.085984"	WA-24-L
Walcott-1	-81	116°22'21.417780"	-19°37'0.030000"	WA-11-L
Madeleine-1	-69	116°21'50.298876"	-19°38'56.550984"	
Wanaea-4	-75	116°23'48.432000"	-19°37'47.635002"	
Julimar Wellheads				
Julimar East-1	-171	115°5'7.969992"	-20°6'23.209992"	WA-49L
Julimar Shout East-1	-156	115°5'7.969992"	-20°9'7.049988"	
Grange-1-WA	-177	138°30'9.879552"	-34°53'2.776092"	
Brulimar-1	-171	115°11'4.989012"	-20°0'18.264996"	
Brunello-1ST1	-151	115°10'25.358988"	-20°3'1.964016"	
Balnaves Deep-1	-135	115°10'34.191984"	-20°4'58.212984"	

Mitigation and Management Measures

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from the decommissioning activities considering timing, duration, location.

A number of mitigation and management measures for the removal of the North West Shelf and Julimar wellheads are outlined in **Table 3**. Further details will be provided in the EP.

Table 3. Summary of key risks and/or impacts and management measures for the wellheads being removed.

Potential Risk and/or Impact	Mitigation and/or Management Measure
Planned	
Physical presence of infrastructure on seafloor causing interference or displacement	<ul style="list-style-type: none"> Wellheads proposed to be removed. Wellheads location marked on marine charts until removal completed. Consultation with relevant persons. For example, commercial fishers and their representative organisations, petroleum titleholders and, government departments and agencies to inform decision making for the proposed activity and development of the EP.
Chemical use	<ul style="list-style-type: none"> Chemical use will be managed in accordance with Woodside and contractor chemical selection and approval procedures.
Light emissions	<ul style="list-style-type: none"> For wells overlapping seabird BIAs, implement relevant controls in the National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds (2020) during breeding seasons.
Marine discharges	<ul style="list-style-type: none"> All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable.
Seabed disturbance	<ul style="list-style-type: none"> Attempted retrieval of dropped objects. No anchoring of vessels.
Vessel interaction	<ul style="list-style-type: none"> Navigation aids and practices will be used as required by Maritime Regulations to minimise potential impact on other marine users. Notification to relevant fishery stakeholders and Government maritime safety agencies of specific start and end dates, specific vessel-on-location and any exclusion zones prior to commencement of the activity. A 500 m radius exclusion zone around the IMR/heavy well intervention semisubmersible vessel during removal and recovery activities. A 1500 m radius Operational Area around each well. Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area.
Waste generation	<ul style="list-style-type: none"> Waste generated on the vessels will be managed in accordance with legislative requirements and a Vessel Waste Management Plan. Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment. Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor
Emissions to atmosphere	<ul style="list-style-type: none"> Standard vessel operations.
Unplanned	
Hydrocarbon release	<ul style="list-style-type: none"> Appropriate spill response plans, equipment and materials will be in place and maintained. Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment.
Introduction of invasive marine species	<ul style="list-style-type: none"> All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species. Compliance with Australian biosecurity requirements and guidance.
Marine fauna interactions	<ul style="list-style-type: none"> Vessel masters will implement interaction management actions in accordance with the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth).

Feedback

Woodside consults relevant persons in the course of preparing Environment Plans to ensure relevant feedback informs its planning for proposed petroleum activities and builds upon Woodside's relevant person consultation for its offshore petroleum activities in the region.

If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information, please contact Woodside before **24 June 2022** via:

E: Feedback@woodside.com.au


Toll free: 1800 442 977

You can subscribe on our website to receive Consultation Information Sheets for proposed activities: www.woodside.com.au

Please note that your feedback and our response will be included in our Environment Plan for the proposed activity, which will be submitted to the NOPSEMA for acceptance in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

1.24 Woodside Historical Exploration Wellhead Decommissioning Information Sheet (sent to all relevant persons) – 9 May 2022



STAKEHOLDER CONSULTATION

INFORMATION SHEET

February 2022

HISTORICAL EXPLORATION WELLHEAD DECOMMISSIONING

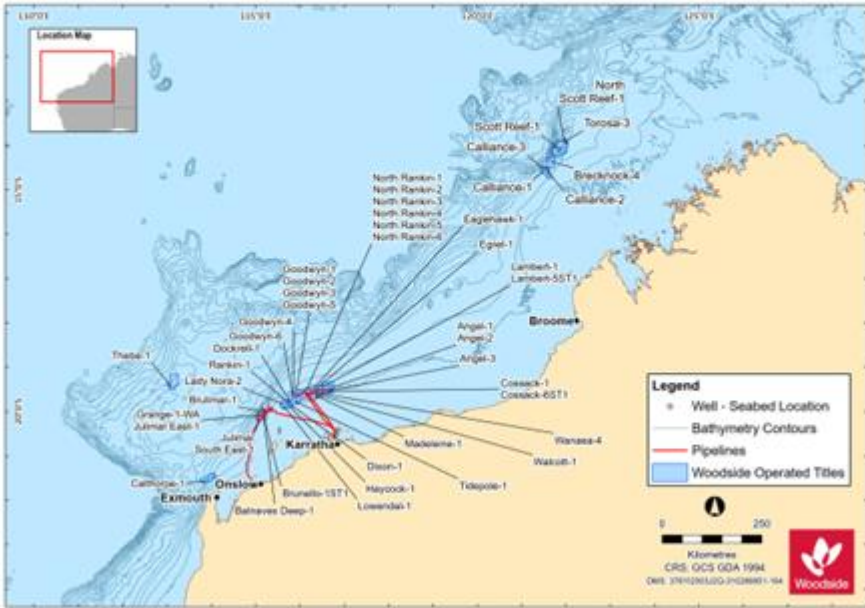
Woodside is progressively decommissioning 46 of its historical exploration wellheads – 43 located in Commonwealth waters and three located in State waters.

A decision-making framework has been developed to identify which wellheads Woodside proposes to remove and those to leave in situ. Consistent with international standards, this framework uses water depth (and corresponding impacts to other marine users) as a key criterion in determining the approach for wellhead decommissioning.

To comply with obligations under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Commonwealth), *Petroleum (Submerged Lands) Act 1982* (State) and associated regulations, Woodside will submit Environment Plans (EP) for the decommissioning of the wellheads.

Six Environment Plans will be developed for the decommissioning of the 46 wellheads, with Woodside planning to **remove 37 of the 46 wellheads** as outlined in the below table.

Environment Plan	Number of Wellheads	Proposed End State	Consultation Periods	Relevant Regulator
Completed and under assessment with NOPSEMA				
Calthorpe-1 Wellhead Decommissioning EP	1	Leave in situ	Completed	NOPSEMA
Thebe-1 Wellhead Decommissioning EP	1	Leave in situ	Completed	NOPSEMA
Eaglehawk-1 Wellhead Decommissioning EP	1	Removal	Completed	NOPSEMA
Due for submission Q2 2022				
Browse Commonwealth Wellhead Decommissioning EP	4	Leave in situ	Q1 2022	NOPSEMA
Browse State Wellhead Decommissioning EP	3	Leave in situ	Q1 2022	DMIRS
Due for submission Q3 2022				
North West Shelf and Julimar Wellhead Decommissioning EP	36	Removal	Anticipated consultation period to commence Q2 2022	NOPSEMA



Legend

- Well - Seabed Location
- Bathymetry Contours
- Pipelines
- Woodside Operated Titles

0 250
Kilometres
CRS: GCS OGA 1994
(EPSG: 21000) UTM Zone 52G
Woodside

Figure 1. Woodside Historical Exploration Wellheads.

Frequently asked questions

What is an exploration wellhead?

Exploration wellheads are used on exploratory wells to locate reserves of oil and gas and gather valuable data such as detailed geological information, initial reservoir pressure measurements and potential for productivity.

Generally, exploration wellheads are comprised of mild steel, with potential for elastomeric materials within seal components similar to those found in a household tap (<250g). The total weight of the steel is estimated to be 7500kg. Wellheads can be up to 4 m above the seabed.

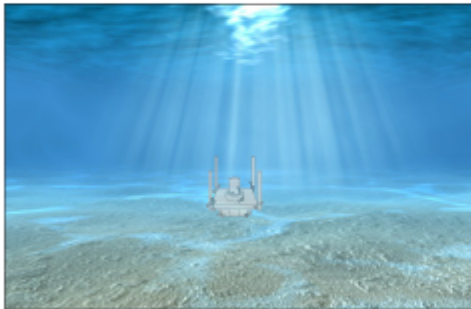


Figure 2: Example historical exploration wellhead.

How does Woodside determine whether an exploration wellhead is proposed to be removed or left *in situ*?

Woodside undertakes options assessments for all decommissioning projects. Our aim is to complete decommissioning in a timely, safe and environmentally responsible manner.

Key steps in evaluating decommissioning options include:

- Identifying the potentially feasible decommissioning options for the wellhead
- Evaluating options based on compliance with relevant legislation and guidelines
- Review of engineering and scientific studies to understand the existing environment and how decommissioning activities may interact with the marine environment
- Assessing the practicability of each option from a technical and health and safety perspective
- Assessing the environmental impacts and risks associated with the decommissioning options including risks and impacts to other marine users

What are the potential impacts to the environment from leaving a wellhead *in situ*?

Potential impacts relate to continued physical presence on the seafloor and degradation overtime. As aligned with the Australian Government's Offshore Petroleum Decommissioning Guideline, for *in situ* decommissioning to be proposed, Woodside's framework states the option must have equal or better environmental outcomes when compared to removal.

Are there any contaminants in the exploration wellheads?

No. Mercury and Naturally occurring radioactive materials (NORMs) are not considered to be present within Exploration wellheads.

Does corrosion and breakdown of the wellhead create a toxicity issue for the marine environment?

No. Given the low toxicity of iron (the main constitute of the wellhead - approximately 98%), the slow release rate and rapid dilution of the open ocean environment, impacts to marine sediments, benthic habitats and water quality will be largely temporary and negligible.

Is there a credible risk of hydrocarbon release after a wellhead has been decommissioned?

All wells are required to be permanently plugged and abandoned. Plugging and abandonment (P&A) procedures differ between wells. However, the process generally involves the setting of cement plugs at specified depths in the wellbore to act as a permanent barrier preventing hydrocarbon release to the environment.

All wells must be accepted by the relevant regulator before they are considered permanently plugged. There are no credible hydrocarbon release risks once a well has been permanently plugged.

How is an exploration wellhead removed and what technology is used?

Wellheads are planned to be cut at or below the mudline leaving a clear seabed following wellhead recovery. An internal cutting tool such as an abrasive water jet or a mechanical internal cutting tool is the primary method of removal. If an internal cut is not possible (i.e. due to access restrictions) then an external cutting tool, like a diamond wire saw, will be used.

A brief description of each cutting method is provided in the following table.

Method	Description
Abrasive water jet	A system of high-pressure water entrained with grit and flocculant is pumped via an umbilical from a vessel to a subsea cutting tool that is inserted inside the well. This method is currently only suitable in water depths shallower than 300 - 350m due to requirements for high pressure jetting but may become suitable in greater water depths in the future.
Mechanical internal cutting tool	Mechanical cutting knives are inserted into the inner well casing and rotated.
Diamond wire saw	A hydraulically driven motor and pulley system is used to operate an industrial diamond cutting wire via a vessel or remotely operated vehicle (ROV).

Will wellheads that remain *in situ* be marked on navigation charts?

Yes. All wellheads are marked on navigation charts and will continue to be if they are left *in situ*.

How does Woodside consider overlap with 'currently closed' areas of trawl zones?

When determining our decommissioning approach, Woodside considers the potential for future interaction with marine users, including fisheries.

Active and currently closed trawl zones are treated as active with potential for future interaction.

Does Woodside plan to install over trawable structures on wellheads that are proposed to be left *in situ*?

No. Woodside has considered the installation of over trawable structures. The design life of these structures (<100 years) limits the potential for protective value and may increase the potential for the structures to become a snag hazard in the long term.

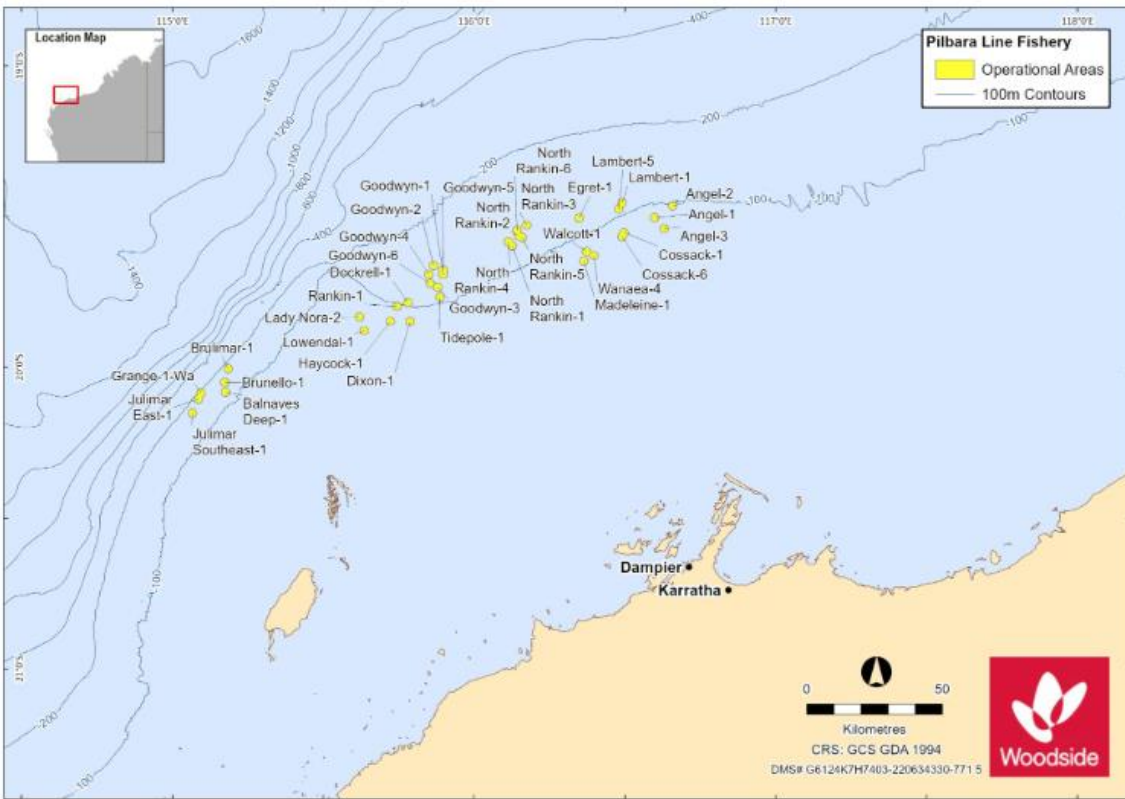
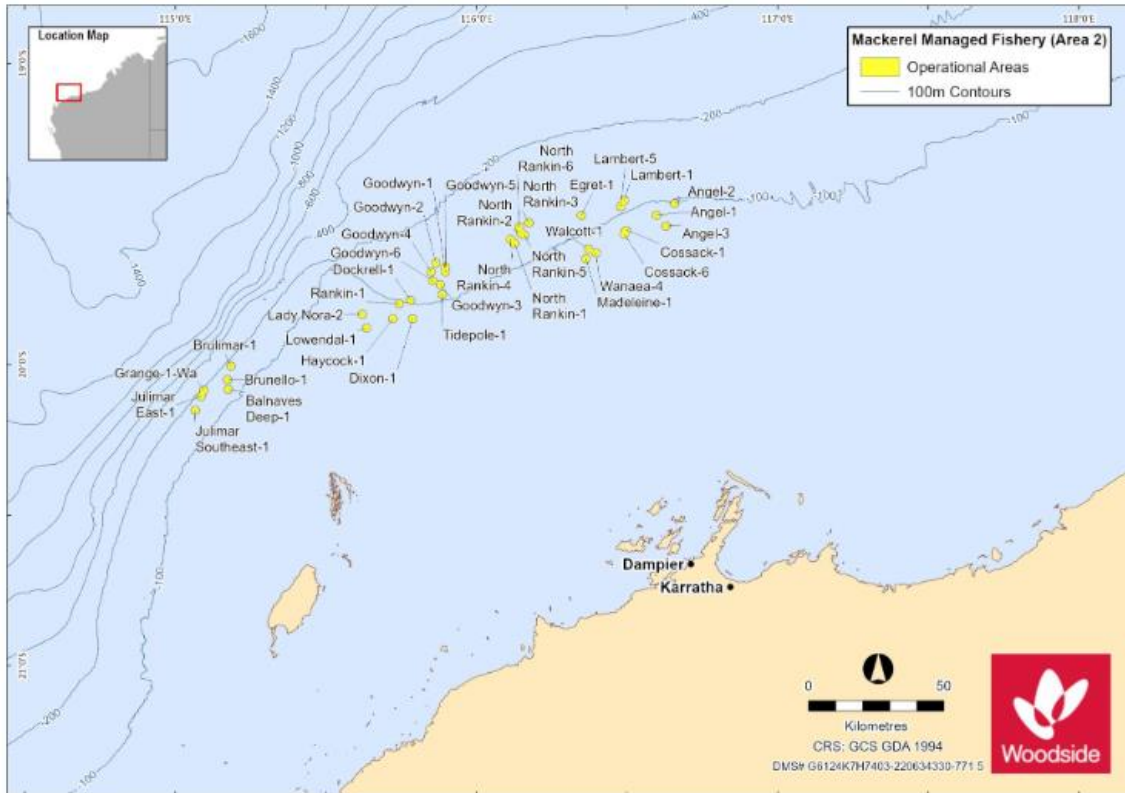
How does Woodside assess the risks to trawl fishers from leaving wellheads *in situ*?

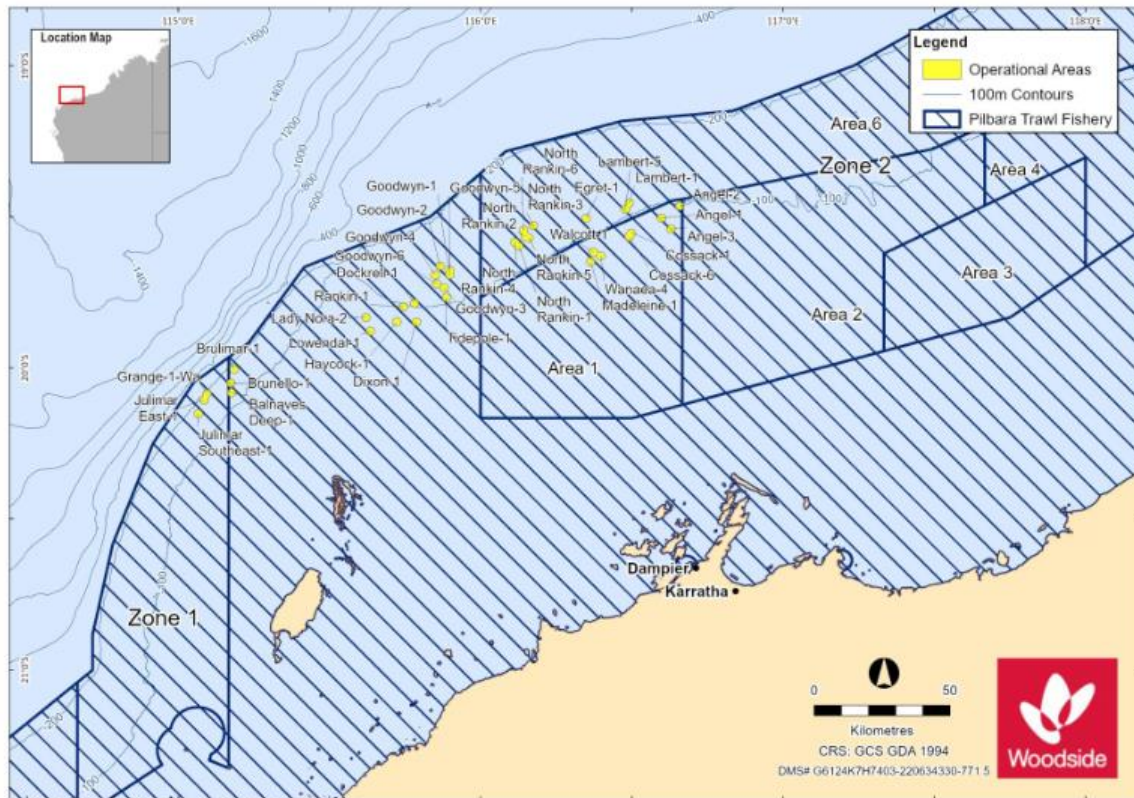
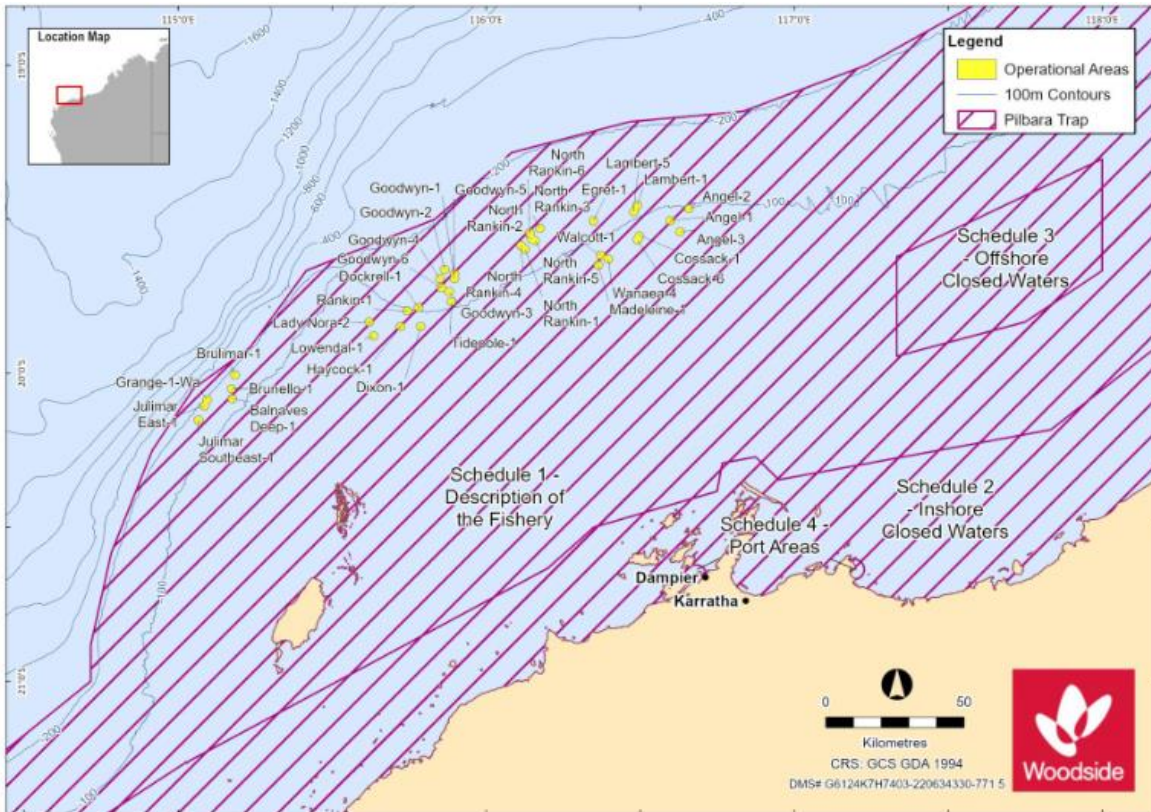
Woodside undertakes a comprehensive assessment on a case-by-case basis, considering for example the type of infrastructure, location, water depth and consultation with relevant fisheries.

What do you do with the wellheads that are removed? Can they be re-used or recycled?

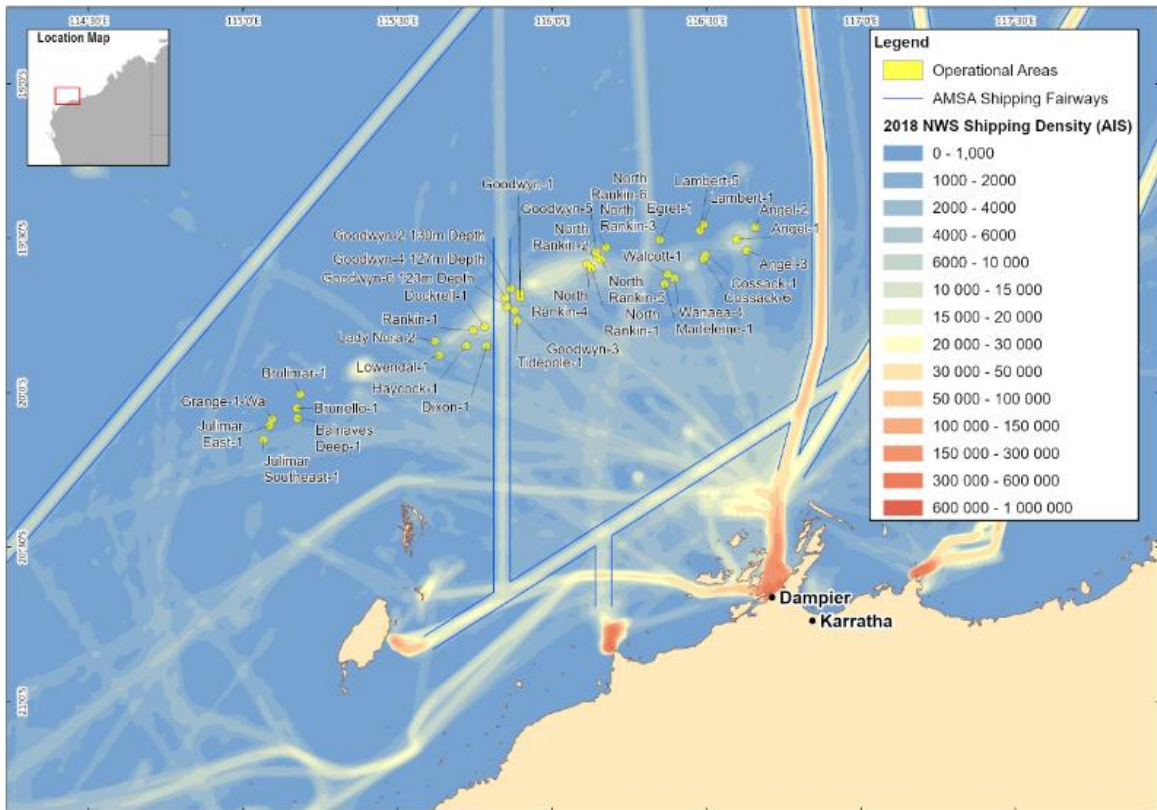
Our approach is to recycle decommissioned infrastructure or reuse or repurpose where possible and appropriate. Waste management contractors have been engaged to provide information about options for management of the decommissioned infrastructure.

Fishery (Area 2) licence holders, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery – 9 May 2022

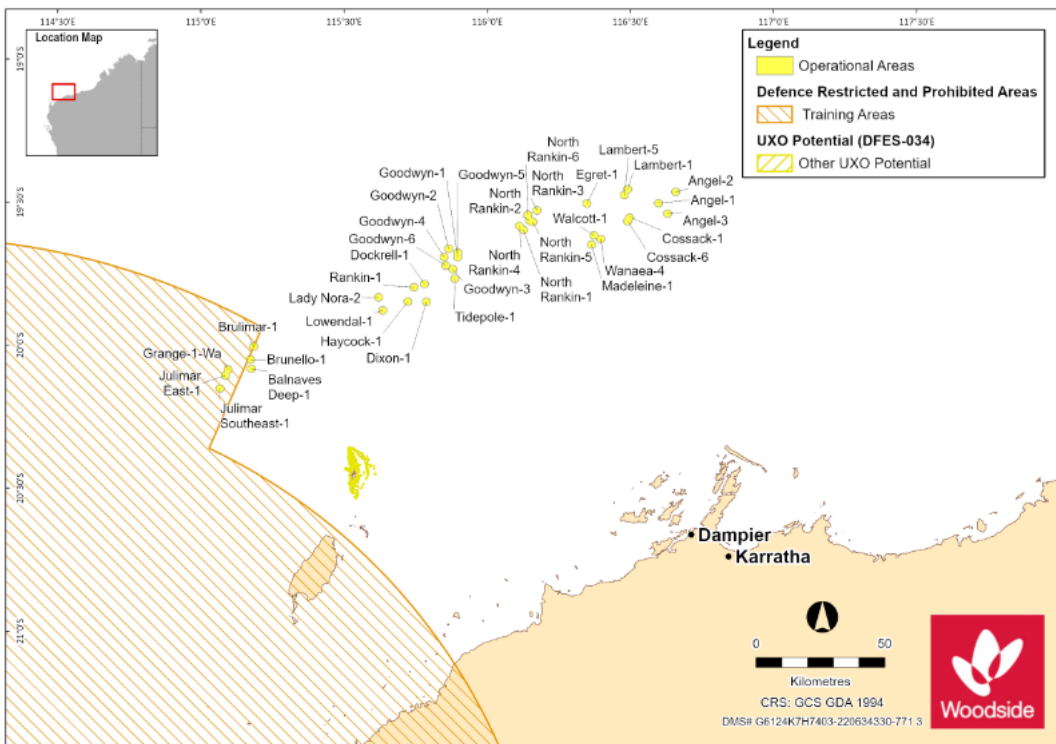




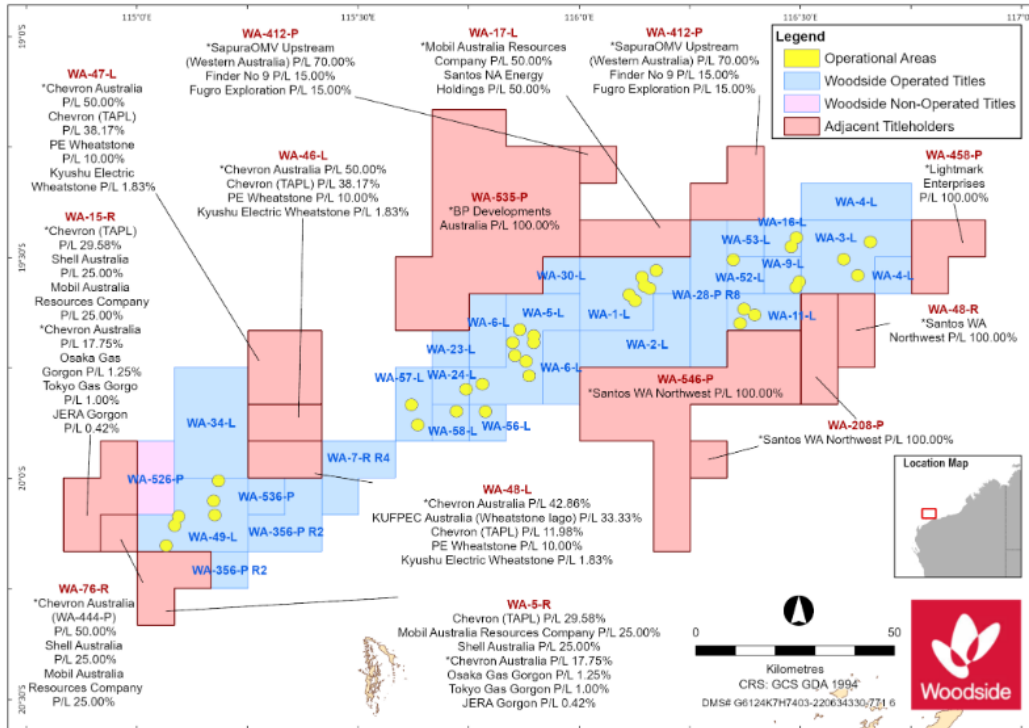
1.26 Shipping lane map sent to Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) – Marine Safety – 9 May 2022



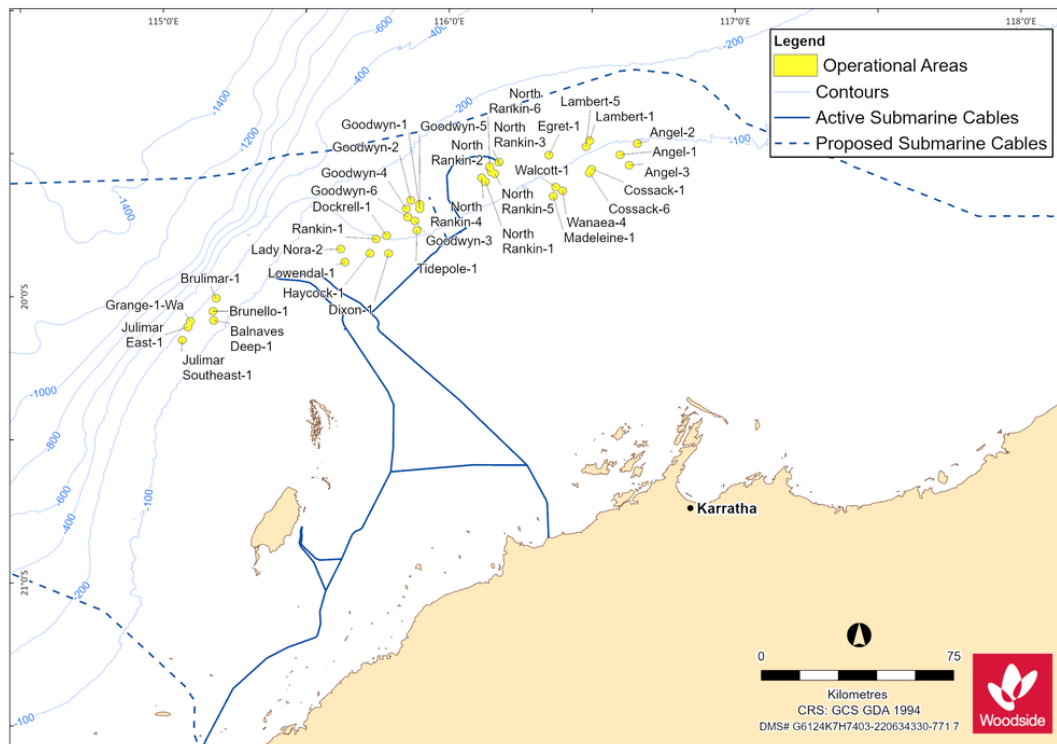
1.27 Defence zone map sent to Department of Defence (DoD) – 9 May 2022



1.28 Titleholder map sent to Chevron Australia, Chevron (TAPL), Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon, PE Wheatstone, Kyushu Electric Wheatstone, Shell Australia, Mobil Australia Resources Company, SapuraOMV Upstream, FINDER No 9, Fugro Exploration, Santos NA Energy Holdings, Santos WA Northwest, BP Developments Australia, Lightmark Enterprises, KUFPEC Australia (Wheatstone Iago) – 9 May 2022



1.29 Communications cable map sent to Australian Communications Media Authority (ACMA) – 9 May 2022



2. Additional Consultation – June 2022

2.1 Email sent to Australian Communications Media Authority (ACMA) – 7 June 2022

Dear ACMA

Woodside previously consulted you (email below) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached for your reference.

An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

2.2 Email sent to Director of National Parks (DNP) – 7 June 2022

Dear Director of National Parks

Woodside previously consulted you (email below) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

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An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

2.3 Email sent to Department of Primary Industries and Regional Development (DPIRD) – 7 June 2022

Dear [REDACTED]

Woodside previously consulted you (email below) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

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An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

2.4 Email sent to Western Australian Fishing Industry Council (WAFIC) – 7 June 2022

Dear [REDACTED]

Woodside previously consulted you (email below) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

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An information sheet (also on our [website](#)), and a map of relevant fisheries is attached for your reference.

An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

2.5 Email sent to Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery – 7 June 2022

Dear Fishery Stakeholders

Woodside previously consulted you (email below) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

The 36 wellheads are planned to be removed between 2023-2025. Activities will include removal of the wellhead and associated infrastructure using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw. The wellheads will continue to be marked on navigational charts until they are removed.

An information sheet (also on our [website](#)), and a map of relevant fisheries is attached for your reference.

An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

2.6 Letter sent Mackerel Managed Fishery (Area 2) licence holders – 7 June 2022

Please direct all responses/queries to:
Woodside Feedback
T: 1800 442 977
E: Feedback@woodside.com.au

7 June 2022

Dear Mackerel Managed Fishery

Woodside previously consulted you (letter attached) on its plans to decommission thirty-six (36) historical exploration wellheads by removing the infrastructure from the seabed.

Thirty (30) wellheads are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas. Six (6) wellheads are located in Commonwealth waters around 170 km northwest of Dampier in 130 – 170 m water depth in a Julimar permit area.

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An information sheet (also on our [website](#)), and a map of relevant fisheries is attached for your reference.

An Information Sheet outlining Woodside's approach to decommissioning our historical exploration wellhead portfolio, including frequently asked questions, is also attached. The Information Sheet is also available on our [website](#).

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **23 June 2022**.

Regards,

Woodside Feedback



Woodside Energy Ltd.
Mia Yellagonga
Karlak, 11 Mount Street
Perth WA 6000
Australia

T: 1800 442 977
E: feedback@woodside.com.au
www.woodside.com.au

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Perth WA 6000
Australia
T +61 8 9348 4000
F +61 8 9214 2777
www.woodside.com.au

Attached: Consultation letter (9 May 2022), Consultation Information Sheet, Historical Exploration Wellhead Information Sheet and Fishery Map

3. Additional Consultation – July 2023

3.1 Email sent to Australian Border Force (ABF), Department of Industry, Science and Resources (DISR), Department of Transport (DoT), Australian Energy Producers (AEP - formerly APPEA), Department of Biodiversity, Conservation and Attractions (DBCA),

Department of Mines, Industry Regulation and Safety (DEMIRS - formerly DMIRS) – 24 July 2023

Dear Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.2 Email sent to Protect Ningaloo – 24 July 2023

Dear Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

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Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.

Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.3 Email sent to Ningaloo Coast World Heritage Advisory Committee (NCWHAC) – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.

Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.4 Email sent to Department of Primary Industries and Regional Development (DPIRD) – 24 July 2023)

Dear [redacted] and [redacted]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.

Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p>State</p> <ul style="list-style-type: none"> • Operational Area: Mackerel Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition) • EMBA: Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Fish Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition), Specimen Shell Managed Fishery, West Australian Sea Cucumber Fishery, West Coast Deep Sea Crustacean Managed Fishery

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.5 Email sent to Western Gas, Exxon Mobil Australia Resources Company, Shell Australia, BP Developments Australia, PE Wheatstone, Kyushu Electric Wheatstone, Finder No 16, KUFPEC, Santos NA Energy Holdings / Santos Ltd / Santos WA Northwest / Santos Offshore / Santos WA Southwest / Santos (BOL) / Santos WA PVG – 24 July 2023

Dear Titleholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and

	activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L. WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

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Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.6 Email sent to Carnarvon Energy, Eni Australia, Vermillion Oil & Gas Australia, KATO Energy / KATO Corowa/KATO NWS/KATO Amulet, Longreach Capital Investments /

Beagle No. 1 Pty Ltd, INPEX Alpha, JX Nippon O&G Exploration (Australia) – 24 July 2023

Dear Titleholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.7 Email sent to Chevron Australia, Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon – 24 July 2023

Dear Chevron

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

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This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

A Consultation Information Sheet is attached, which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We would be grateful if you could please forward this consultation information to your Joint Venture participants Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon for feedback.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.8 Email sent to Australian Hydrographic Office (AHO), Australian Maritime Safety Authority (AMSA) – Marine Safety – 24 July 2023

Dear AHO/AMSA

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). **A shipping lane map is also attached.** You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.9 Email sent to Australian Maritime Safety Authority (AMSA) - Marine Pollution – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.

Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.10 Email sent to Australian Fisheries Management Authority (AFMA) – 24 July 2023

Dear AFMA

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.

Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p><u>Commonwealth</u></p> <ul style="list-style-type: none"> • Operational Area: Nil • EMBA: North West Slope Trawl Fishery, Western Deepwater Trawl Fishery

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.11 Email sent to Exmouth Gulf Prawn Managed Fishery, Pilbara Trap Fishery, Pilbara Line Fishery and Pilbara Trawl Fishery – 24 July 2023

Dear Fishery Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p>State</p> <ul style="list-style-type: none"> • Operational Area: Mackerel Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition) • EMBA: Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Fish Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition), Specimen Shell Managed Fishery, West Australian Sea Cucumber Fishery, West Coast Deep Sea Crustacean Managed Fishery

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.12 Email sent to Western Australian Fishing Industry Council (WAFIC) – 24 July 2023

Dear [REDACTED] and [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for](#)

[the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

Woodside acknowledges WAFIC’s [consultation guidance](#) and has applied this by consulting fisheries that are assessed as having a potential for interaction in the Operational Area directly and consulting fisheries assessed as having a potential for interaction in the EMBA via WAFIC.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.

<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
<p>Relevant fisheries</p>	<p><u>State</u></p> <ul style="list-style-type: none"> • Operational Area: Mackerel Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition) • EMBA: Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Fish Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, Pilbara Trap Managed Fishery, Pilbara Line Fishery (Condition), Specimen Shell Managed Fishery, West Australian Sea Cucumber Fishery, West Coast Deep Sea Crustacean Managed Fishery

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.13 Email sent to North West Slope and Trawl Fishery, Western Deepwater Trawl Fishery, Tuna Australia, Australian Southern Bluefin Tuna Industry Association (ASBTIA) – 24 July 2023

Dear Fishery Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.

Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p><u>Commonwealth</u></p> <ul style="list-style-type: none"> • Operational Area: Nil • EMBA: North West Slope Trawl Fishery, Western Deepwater Trawl Fishery

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.14 Letter sent to Marine Aquarium Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Specimen Shell

Managed Fishery, Western Australian Sea Cucumber Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery – 24 July 2023

Dear Fisheries Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

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Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p><u>State</u></p> <ul style="list-style-type: none"> • Operational Area: Mackerel Managed Fishery (Area 2 and 3), Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery • EMBA: Exmouth Gulf Prawn Managed Fishery, Mackerel Managed Fishery (Area 2 and 3), Marine Aquarium Fish Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery, Pilbara Line Fishery, Specimen Shell Managed Fishery, West

	Australian Sea Cucumber Fishery, West Coast Deep Sea Crustacean Managed Fishery
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24 July 2023

1

Dear Fishery Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

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- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

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Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
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Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.

Vessels	<ul style="list-style-type: none">• Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel.• Potential for additional general support vessel.
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Regards,

Woodside Feedback



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3.15 Letter sent to Mackerel Managed Fishery (Area 2) licence holders – 24 July 2023

Dear Fisheries Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Exclusionary / Cautionary Zones

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Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
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24 July 2023

8



Dear Fishery Stakeholder

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Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Exclusionary / Cautionary Zones

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Vessels	<ul style="list-style-type: none">• Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel.• Potential for additional general support vessel.
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Regards,

Woodside Feedback



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3.16 Letter sent to Gascoyne and Pilbara/Kimberley-Recreational Marine Users – 24 July 2023

Dear Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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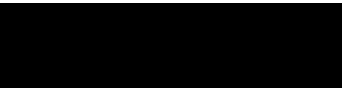
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24 July 2023

82



Dear Stakeholder

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A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our website at [woodside.com](http://www.woodside.com). You can also subscribe to receive updates on our consultation activities on our website.

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Information for the Community to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,

Woodside Feedback



Woodside Energy
Mia Yellagonga
Karak, 11 Mount Street
Perth WA 6000
Australia

T: 1800 442 977
E: feedback@woodside.com.au
www.woodside.com
f t in v @

3.17 Email sent to Exmouth Recreational Marine Users, Karratha Recreational Marine Users, Recfishwest, Marine Tourism Association, WA Game Fishing Association – 24 July 2023

Dear Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our website at woodside.com. You can also subscribe to receive updates on our consultation activities on our website.

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and

	activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.18 Email sent to Department of Agriculture Fisheries and Forestry (DAFF) – Fisheries and Biosecurity – 24 July 2023

Dear DAFF – Fisheries and Biosecurity

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
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Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan
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Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p><u>Commonwealth fisheries</u></p> <ul style="list-style-type: none"> • Operational Area: Nil • EMBA: Northwest Slope Trawl Fishery, Western Deepwater Trawl Fishery.

Biosecurity:

With respect to the biosecurity matters, please note the following information below:

Environment description:

The Petroleum Activity Area (which includes a 1500 m Operational Area around each wellhead) is located in water depths of approximately 69 to 170 m deep on the continental shelf. The bathymetry within the Petroleum Activity Area is generally flat and has a gentle seaward gradient. The seabed in the Petroleum Activity Area is likely to be dominated by soft sediment comprised of fine to coarse sands, which typify the sediments of the North West Marine Region.

Potential IMS risk	IMS mitigation management
Accidental introduction and establishment of invasive marine species	Vessels are required to comply with the Australian Biosecurity Act 2015, specifically the Australian Ballast Water Management Requirements (as defined under the Biosecurity Act 2015) (aligned with the International Convention for the Control and Management of Ships' Ballast Water and Sediments) to prevent introducing IMS. Vessels will be assessed and managed to prevent the introduction of invasive marine species in accordance with Woodside's Invasive Marine Species Management Plan. Woodside's Invasive Marine Species Management Plan includes a risk assessment process that is applied to vessels undertaking Activities. Based on the outcomes of each IMS risk assessment, Management measures commensurate with the risk (such as the treatment of internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

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Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.19 Email sent to Department of Defence (DoD) – 24 July 2023

Dear Department of Defence

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
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Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

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3.20 Email sent to Department of Climate Change, Energy, the Environment and Water (DCCEEW - formerly the Department of Agriculture, Water and the Environment DAWE) – 24 July 2023

Dear DCCEEW

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Activities under this EP include:

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Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m).
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Infrastructure	<ul style="list-style-type: none">• 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components.• Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts.• Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none">• Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel.• Potential for additional general support vessel.

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Commonwealth Shipwrecks

Vessel Name	Vessel Type	Vessel Type 1	Wreck Year	Where Lost	Latitude	Longitude
Olive	SAILVESL	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Pearl	SAILVESL	Sailing vessel	1896	Exmouth Gulf, Meda Creek	-21.75	114.0833333
Vianen	SAILVESL	Sailing vessel	1628	Barrow Island Area	-20	115.1666667
Wild Wave (China)	SAILVESL	Sailing vessel	1873	Monte Bello Island	-20	115.1666667
Smuggler	SAILVESL	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Haw Kiet	UNKNOWN	Unknown	2003		18.45816667	117.2583333
Mabel	SAILVESL	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Marietta	UNKNOWN	Unknown	1905	Barrow Island	-20	115.1666667
Lady Ann	SAILVESL	Sailing vessel	1982	24 miles north of NW Cape	-21.4	114.2
Lamareaux	SAILVESL	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Leave	SAILVESL	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333

3.21 Email sent to Director of National Parks (DNP) – 24 July 2023

Dear Director of National Parks

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L. WA-16-L and WA-49-L.

Woodside previously consulted you on its plan to planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

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Activities under this EP include:

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- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Australian Marine Parks (AMPs)

We note Australian Government Guidance on consultation activities and confirm that:

- The proposed activities are outside the boundaries of a proclaimed Australian Marine Park (AMP), with the closest well (Balnaves Deep-1) located approximately 6 km east of the Commonwealth boundary of the Montebello Islands Australian Marine Park.
- We have assessed potential risks to AMPs in the development of the proposed Environment Plan and consider that there are no credible risks as part of planned activities that have potential to impact the values of the AMPs.
- The worst-case credible spill scenario assessed in this EP is the highly unlikely event of a vessel collision resulting in a release of marine diesel. Through review of hydrocarbon spill modelling, and with consideration of a 50 ppb dissolved and 100 ppb entrained hydrocarbon threshold, the following AMPs may be contacted in the event of a spill:
 - Gascoyne (Multiple Use Zone VI)
 - Montebello (Multiple Use Zone VI)
 - Ningaloo (Recreational Use Zone IV)
- A Commonwealth Government-approved oil spill response plan will be in place for the duration of the activities, which will include notification to relevant agencies and organisations as to the nature and scale of the event, as soon as practicable following an occurrence. The Director of National Parks will be advised if an environmental incident occurs that may impact on the values of the AMP.

Environment that May Be Affected (EMBA)

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Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)*. Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.22 Email sent to Department of Planning, Lands and Heritage (DPLH) – 24 July 2023

Dear DPLH

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.

Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m).
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

WA Historical Shipwrecks

WA Historical Shipwrecks 0998

NAME	COMMENTS	WHEN_LOST	WHERE_LOST	LON	LAT
Trial	First European wreck on the Australian coast	24/05/1622	Trial Rocks	115.3736667	-20.2871667
Lady Ann	Check Lats and Longs. Oil rig tender	18/09/1982	24 miles north of NW Cape	114.2	-21.4

3.23 Email sent to Murujuga Aboriginal Corporation (MAC) – 1 August 2023

Dear [REDACTED]

I hope you are well. I saw the video celebrating World Ranger Day on LinkedIn – well done on putting that together.

I am contacting you in relation to Woodside's plans for a near future activity. Activity details as follows:

- *North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.*

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP). The summary information sheets that explain the activities we plan to undertake are attached to this email.

Woodside is seeking to understand the nature of the interests that Murujuga Aboriginal Corporation and its members may have in the 'environment that may be affected' (EMBA) by this activity. For clarity, the EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activities could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activities and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

Please let us know by **01 September 2023** if you would like to speak to us regarding this activity. Please also let us know how you would like us to engage with you (e.g. at a circle of Elders meeting) as soon as possible and if there is any support or specific information you require.

You can also provide feedback directly to me, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to MAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with MAC members, the MAC Board and office holders and other interested parties.

I look forward to hearing from you.

Kind regards

3.24 Email sent to Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) via YMAC – 1 August 2023

Dear [REDACTED] and [REDACTED]

I hope this message finds you both well.

Further to our discussions and correspondence about various Woodside activities, I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty-six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for this activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached a summary information sheet that explains the activity, and a link to more detailed consultation information sheet is below:

- https://www.woodside.com/docs/default-source/current-consultation-activities/nws-and-julimar-exploration-wellhead-decomm-ep.pdf?sfvrsn=d24d24ca_6

Woodside is seeking to understand the nature of the interests that Nganhurra Thanardi Garbu Aboriginal Corporation (NTGAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activities could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activities and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to NTGAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with NTGAC members, the NTGAC Board and office holders, and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist NTGAC in any way to participate in these processes.

Kind regards

██████████

3.25 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) – 1 August 2023

Dear ██████████

I hope this message finds you well.

Further to our discussions and correspondence about various Woodside activities, I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty-six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for this activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached a summary information sheet that explains the activity, and a link to more detailed consultation information sheet is below:

- https://www.woodside.com/docs/default-source/current-consultation-activities/nws-and-julimar-exploration-wellhead-decomm-ep.pdf?sfvrsn=d24d24ca_6

Woodside is seeking to understand the nature of the interests that Buurabalayji Thalanyji Aboriginal Corporation (BTAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activities could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activities and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to BTAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with BTAC members, the BTAC Board and office holders, and other interested parties. We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist BTAC in any way to participate in these processes.

Kind regards

██████

3.26 Email sent to Yinggarda Aboriginal Corporation (YAC) – 1 August 2023

Dear ██████

I hope this message finds you well.

Further to our discussions and correspondence about various Woodside activities, I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty-six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for this activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached a summary information sheet that explains the activity, and a link to more detailed consultation information sheet is below:

- https://www.woodside.com/docs/default-source/current-consultation-activities/nws-and-julimar-exploration-wellhead-decomm-ep.pdf?sfvrsn=d24d24ca_6

Woodside is seeking to understand the nature of the interests that Yinggarda Aboriginal Corporation (YAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activities could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activities and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to YAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with YAC members, the YAC Board and office holders, and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist YAC in any way to participate in these processes.

Kind regards

■

3.27 Email sent to Kariyarra Aboriginal Corporation – 1 August 2023

Dear ■

I hope this message finds you well.

I am contacting you regarding Woodside's plans in relation to near future activity. North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached summary information sheet that explains the activity we plan to undertake.

Woodside is seeking to understand the nature of the interests that Kariyarra Aboriginal Corporation and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

How the activity could impact your interests and activities and/or your cultural values

Your concerns about the proposed activity and what you think we should do about those concerns
Whether there are any other individuals, groups, or organisations you think we should talk to.

If you would like to speak with us, please let us know by 01 September 2023. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached document to Kariyarra Aboriginal Corporation members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with Kariyarra Aboriginal Corporation members, the Kariyarra Aboriginal Corporation Board and office holders and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist Kariyarra Aboriginal Corporation in any way to participate in these processes.

Kind regards

■■■■

3.28 Email sent to Wirrawandi Aboriginal Corporation (WAC) – 1 August 2023

Hi ■■■■

It was good to meet you this morning and if timing was a little different, I could have hand delivered this to you.

I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached summary information sheet that explains the activity we plan to undertake.

Woodside is seeking to understand the nature of the interests that Wirrawandi Aboriginal Corporation and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activity could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activity and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached document to Wirrawandi Aboriginal Corporation members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with Wirrawandi Aboriginal Corporation members, the Wirrawandi Aboriginal Corporation Board and office holders and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist Wirrawandi Aboriginal Corporation in any way to participate in these processes.

Kind regards

■■■■

3.29 Email sent to Robe River Kuruma Aboriginal Corporation (RRKAC) – 1 August 2023

Dear ■■■■

I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached summary information sheet that explains the activity we plan to undertake.

Woodside is seeking to understand the nature of the interests that Robe River Kuruma Aboriginal Corporation (RRKAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activity could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activity and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian

Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached document to RKKAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with RKKAC members, the RKKAC Board and office holders and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist RKKAC in any way to participate in these processes.

Kind regards,

■

3.30 Email sent to Ngarluma Aboriginal Corporation (NAC) – 1 August 2023

Dear ■

I hope you are well.

I am contacting you in relation to Woodside's plans for a near future activity. Activity details as follows:

- *North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.*

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP). The summary information sheets that explain the activities we plan to undertake are attached to this email.

Woodside is seeking to understand the nature of the interests that Ngarluma Aboriginal Corporation (NAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. For clarity, the EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activities could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activities and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

Please let us know by **01 September 2023** if you would like to speak to us regarding this activity. Please also let us know how you would like us to engage with you (e.g. at an Elders meeting) as soon as possible and if there is any support or specific information you require.

You can also provide feedback directly to me, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to NAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with NAC members, the NAC Board and office holders and other interested parties.

I look forward to hearing from you.

Kind regards

3.31 Email sent to Yindjibarndi Aboriginal Corporation – 2 August 2023

Hi [REDACTED]

I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached summary information sheet that explains the activity we plan to undertake.

Woodside is seeking to understand the nature of the interests that Yindjibarndi Aboriginal Corporation (YAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activity could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activity and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to YAC members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with YAC members, the YAC Board and office holders and other interested parties.

We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist YAC in any way to participate in these processes.

Kind regards

[REDACTED]

3.32 Email sent to Ngarluma Yindjibarndi Foundation Ltd (NYFL) – 1 August 2023

Hi [REDACTED]

I hope this message finds you well.

I am contacting you regarding Woodside's plans in relation to near future activity.

- North West Shelf and Julimar Exploration Wellhead Decommissioning – Woodside is planning to decommission (remove) thirty six (36) historical exploration wellheads that were previously used to explore for oil and gas.

In preparation for the activity, Woodside has undertaken assessments to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

I have attached summary information sheet that explains the activity we plan to undertake.

Woodside is seeking to understand the nature of the interests that Ngarluma Yindjibarndi Foundation Ltd (NYFL) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached. We are interested in hearing:

- How the activity could impact your interests and activities and/or your cultural values
- Your concerns about the proposed activity and what you think we should do about those concerns
- Whether there are any other individuals, groups, or organisations you think we should talk to.

If you would like to speak with us, please let us know by **01 September 2023**. Please also let us know how you would like us to engage with you as soon as possible and if there is any support or specific information you require, please let me know.

You can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please also feel free to forward this email and the attached documents to NYFL members and other people and organisations who you think may be interested as required. Woodside would be happy to speak with NYFL members, the NYFL Board and office holders and other interested parties. We look forward to hearing from you.

As always, please be in contact if you require further information and if Woodside can assist NYFL in any way to participate in these processes.

Kind regards

3.33 Email sent to Western Australian Museum (WAM) – 24 July 2023

Dear Western Australian Museum

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum

activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). **Also attached is a list of shipwrecks in State waters within the EMBA.** You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m).
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

WA Historical Shipwrecks

WA Historical Shipwrecks 0998

NAME	COMMENTS	WHEN_LOST	WHERE_LOST	LON	LAT
Trial	First European wreck on the Australian coast	24/05/1622	Trial Rocks	115.3736667	-20.2871667
Lady Ann	Check Lats and Longs. Oil rig tender	18/09/1982	24 miles north of NW Cape	114.2	-21.4

3.34 Email sent to Shire of Exmouth – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.

Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.35 Email sent to Shire of Ashburton – 24 July 2023

Dear [REDACTED] and [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.

Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.36 Email to City of Karratha – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m).
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.37 Email sent Exmouth Community Liaison Group – 24 July 2023

Dear Exmouth Community Liaison Group

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts.

	<ul style="list-style-type: none"> Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.38 Email sent to Karratha Community Liaison Group – 24 July 2023

Dear Karratha Community Liaison Group

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

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- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

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A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
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Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.39 Email sent to Onslow Chamber of Commerce and Industry – 24 July 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

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This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

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- Ongoing management of wells including inspection, maintenance and repair (IMR), and
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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.40 Email sent to Australian Conservation Foundation (ACF), Conservation Council of Western Australia (CCWA), Greenpeace Australia Pacific (GAP), Maritime Union of Australia (MUA) – 24 July 2023

Dear Stakeholder,

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and

- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.41 Email sent to Cape Conservation Group (CCG) – 24 July 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.42 Email sent to University of Western Australia (UWA) – 24 July 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

Woodside is seeking your advice regarding any research activities that UWA may be undertaking that may overlap with our proposed activities.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.43 Email sent to Western Australian Marine Science Institution (WAMSI) – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

Woodside is seeking your advice regarding any research activities that WAMSI may be undertaking that may overlap with our proposed activities.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
<p>Vessels</p>	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.44 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) – 24 July 2023

Dear [REDACTED]

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

Woodside is seeking your advice regarding any research activities that CSIRO may be undertaking that may overlap with our proposed activities.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

<p>Infrastructure</p>	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
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Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.45 Email sent to Australian Institute of Marine Science (AIMS) – 24 July 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

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The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

Woodside is seeking your advice regarding any research activities that AIMS may be undertaking that may overlap with our proposed activities.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
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Infrastructure	<ul style="list-style-type: none">• 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components.• Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts.• Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none">• Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel.• Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.46 Woodside Consultation Information Sheet (sent to all relevant persons) – 24 July 2023



CONSULTATION

INFORMATION SHEET

July 2023

NORTH WEST SHELF AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

CARNARVON BASIN, NORTH-WEST AUSTRALIA

Overview

Woodside consults relevant persons in the course of preparing an environment plan (EP) to notify them, obtain their input and to assist Woodside to confirm current measures or identify additional measures, if any, that could be taken to lessen or avoid potential adverse effects of the proposed activity on the environment. This is the intended outcome of consultation.

Woodside's aim is to ensure the proposed activity is carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD), by which the environmental impacts and risks of the activity are reduced to as low as reasonably practicable (ALARP) and to an acceptable level. We want relevant persons whose functions, interests or activities that may be affected by the proposed activity to have the opportunity to provide feedback on our proposed activity, in accordance with the intended outcome of consultation.

Proposed activity

Woodside is planning to decommission thirty-six (36) historical exploration wells (listed in Table 1) located across the North West Shelf of Western Australia.

Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier in 69 - 133 m water depth in North West Shelf permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, and WA-52-L.

Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier in 130 - 170 m water depth in Julimar permit area WA-49-L.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned. This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include ongoing management of wells including inspection, maintenance and repair (IMR), and removal of wellheads and associated infrastructure for wells accepted as permanently abandoned. IMR activities may include inspection of wells to confirm adequacy of barriers for permanent abandonment. Wellheads will be removed using an abrasive water jet cutting method, mechanical internal cutting tool or diamond wire saw.

Activities are anticipated to commence around Q1 2024 with the removal of wellheads accepted as abandoned. Additional campaigns will be planned over the life of the EP to conduct IMR and remove wellheads for wells that become accepted as permanently abandoned. Should further plugging and abandonment (P&A) activities be required for any wells, these are planned to be included in a separate future approval and these wellheads would remain in situ until they are accepted as permanently abandoned.

Vessels

Activities will be completed by an offshore support vessel such as an inspection maintenance and repair (IMR) vessel or semi submersible heavy well intervention vessel which may be accompanied by a general support vessel. The vessels will operate on dynamic positioning (DP) and is anticipated to not anchor/moor on the seabed.

IMR activities are expected to take up to 3 days per well, where required. Removal and recovery activities are expected to take approximately 3 days per well, however could take up to 10 days per well.

Duration of activities is subject to change due to project schedule requirements, vessel availability, weather or other unforeseen circumstances. When underway, vessels are expected to operate 24 hours per day for the duration of the activities.

Communications with mariners

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

The wellheads will continue to be marked on navigational charts until they are removed.

Decommissioning assessment

Woodside has undertaken a comprehensive assessment of decommissioning options for these wellheads considering water depth, interaction with other marine users, previous removal attempts, relevant international and Australian legislation and standards and a comparison of the impacts and risks associated with executing feasible decommissioning options. This assessment concluded removal is the preferred decommissioning option for these wells.

In preparing the EP, Woodside's intent is to minimise environmental and social impacts associated with the proposed activities, and we are seeking any interest or comments you may have to inform our decision making.

Carbon capture and storage opportunity

The Angel Joint Venture participants have been awarded a greenhouse gas assessment permit over a permit area which includes the Angel formation and has commenced detailed studies to assess the technical, regulatory and commercial feasibility of a carbon capture and storage (CCS) project. The Angel-1, Angel-2 and Angel-3 wells are located within the Angel formation, and decommissioning of these wells is included in this EP.

It is proposed that Woodside will continue to progress the petroleum activity program in parallel to the CCS opportunity. Should the CCS opportunity progress to a certain level of maturity, Woodside proposes to retain the Angel-1, Angel-2 and Angel-3 wellheads in situ and maintain and inspect the wellheads under the Angel Operations EP. If Woodside does not progress the CCS opportunity, the wellheads will be removed as proposed in this EP.

Joint Ventures

Woodside Energy Ltd is operator on behalf of the North West Shelf Joint Venture. The participants in the North West Shelf Joint Venture are Woodside Energy (North West Shelf) Pty Ltd, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIM) Pty Ltd, Shell Australia Pty Ltd, Woodside Energy Ltd and CNOOC NWS Private Limited.

Woodside Energy Julimar Pty Ltd is operator on behalf of the Julimar Joint Venture with joint venture partner KUFPEC Australia (Julimar) Pty Ltd.

We welcome your feedback by 24 August 2023

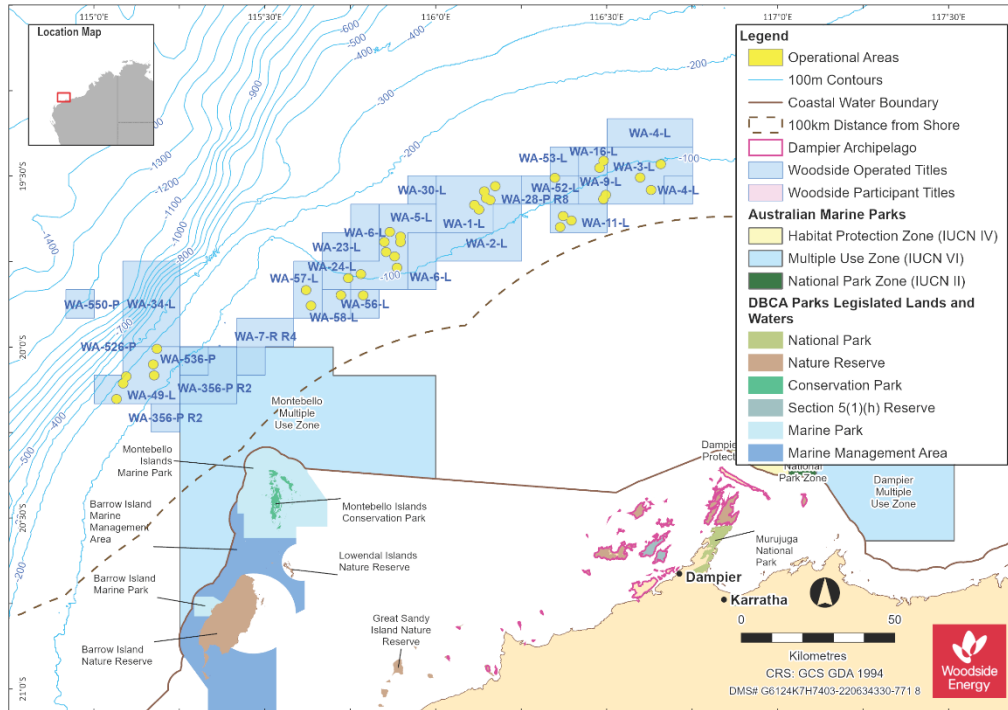


Figure 1. North West Shelf and Julimar Wellhead locations

Table 1. Activity summary for all wellheads

Exploration wellhead activities	
Infrastructure	<ul style="list-style-type: none"> 36 exploration wellheads comprising of mild steel with small amounts (<250 – 750 g) of elastomeric materials used within seal components Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less
Commencement date	<ul style="list-style-type: none"> Planned activities are expected to be completed between 2024-2028. Timing is subject to approvals, vessel availability and weather constraints
Approximate estimated duration	<ul style="list-style-type: none"> IMR activities are expected to take up to 3 days per well, where required Wellhead removal and recovery is expected to take approximately 3 days per well to complete, however may take up to 10 days per well The activity is planned to be completed as multiple campaigns between 2024 and 2028
Exclusion zones	<ul style="list-style-type: none"> Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements
Vessels	<ul style="list-style-type: none"> Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel Potential for additional general support vessel
Distance to nearest town	<ul style="list-style-type: none"> North West Shelf wellheads: ~117 km northwest from Dampier town from the closest wellhead (Madeleine-1) Julimar wellheads: ~170 km northwest from Dampier and Onslow towns from the closest wellhead (Balnaves Deep-1)
Distance to nearest marine park/nature reserve	<ul style="list-style-type: none"> North West Shelf wellheads: ~14 km northeast of the Multiple Use Zone Montebello Australian Marine Park from the closest wellhead (Lowendal-1) and ~90 km northeast of the Habitat protection zone of the Dampier Australian Marine Park from the closest wellhead (Madeleine-1) Julimar wellheads: ~8 km from northeast Montebello Australian Marine Parks from the closest wellhead (Balnaves Deep-1)

Table 2. Approximate locations

Wellhead	Water Depth	Latitude	Longitude	Permit Area
North West Shelf Wellheads				
Angel-1	-80	116°35'52.544508"	-19°30'14.900868"	
Angel-2	-87	116°39'29.500956"	-19°27'53.638236"	WA-3-L
Angel-3	-69	116°37'47.253576"	-19°32'26.030760"	
Cossack-1	-82	116°29'50.554998"	-19°33'17.129004"	
Cossack-6ST1	-79	116°29'25.228002"	-19°34'2.127000"	WA-9-L
Dixon-1	-85	115°47'16.468944"	-19°50'54.962664"	WA-56-L
Egret-1	-118	116°20'54.365892"	-19°30'18.451908"	WA-52-L
Dockrell-1	-110	115°46'51.526998"	-19°47'11.791002"	
Goodwyn-1	-126	115°53'49.169004"	-19°41'33.488988"	
Goodwyn-2	-133	115°51'56.302416"	-19°39'47.735928"	
Goodwyn-3	-120	115°52'47.424684"	-19°44'5.487216"	
Goodwyn-4	-130	115°50'58.763472"	-19°41'33.147096"	WA-5-L
Goodwyn-5	-128	115°53'49.805988"	-19°40'37.089012"	
Goodwyn-6	-124	115°51'16.964388"	-19°43'19.077636"	
Tidepole-1	-110	115°53'12.382008"	-19°46'3.442008"	
Haycock-1	-85	115°43'21.159300"	-19°50'53.176956"	WA-58-L
Lambert-5ST1	-116	116°28'45.029496"	-19°28'32.604636"	
Lambert-1	-125	19° 27' 18.163" S	116° 29' 27.442" E	WA-16-L
Lady Nora-2	-75	115°37'14.440008"	-19°49'59.819988"	
Lowendal-1	-85	115°38'6.460800"	-19°52'43.557924"	WA-57-L
North Rankin-1	-122	116°7'35.519844"	-19°35'51.910008"	
North Rankin-2	-126	116°8'51.517500"	-19°33'51.925320"	
North Rankin-3	-126	116°10'27.158988"	-19°31'45.977016"	
North Rankin-4	-127	116°6'47.028348"	-19°35'3.576804"	WA-1-L
North Rankin-5	-123	116°9'33.687612"	-19°34'12.455112"	
North Rankin-6	-124	116°8'31.166880"	-19°32'40.035048"	
Rankin-1	-93	115°44'39.312996"	-19°47'53.085984"	WA-24-L
Walcott-1	-81	116°22'21.417780"	-19°37'0.030000"	
Madeleine-1	-69	116°21'50.298876"	-19°38'56.550984"	WA-11-L
Wanaea-4	-75	116°23'48.432000"	-19°37'47.635002"	
Julimar Wellheads				
Julimar East-1	-171	115°5'7.969992"	-20°6'23.209992"	
Julimar South East-1	-156	115°5'7.969992"	-20°9'7.049988"	
Grange-1-WA	-177	138°30'9.879552"	-34°53'2.776092"	
Brulimar-1	-171	115°11'4.989012"	-20°0'18.264996"	WA-49-L
Brunello-1ST1	-151	115°10'25.358988"	-20°31.964016"	
Balnaves Deep-1	-135	115°10'34.191984"	-20°4'58.212984"	

Environment That May Be Affected (EMBA)

The environment that may be affected (EMBA) is the largest spatial extent where the NWS and Julimar wellhead decommissioning activities could potentially have an environmental consequence (direct or indirect impact). The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this EP is determined by a highly unlikely release of hydrocarbons to the environment due to a vessel collision (between project vessels or third-party vessels). This is depicted in Figure 2.

The EMBA does not represent the extent of predicted impact of the highly unlikely hydrocarbon release. Rather, the EMBA represents the merged area of many possible paths a highly unlikely hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the entire EMBA will not be affected and the specific and minimal part of the EMBA that is affected will only be known at the time of the release.

For this EP Woodside has defined the EMBA by combining the potential spatial extent of surface and in-water (dissolved and entrained) hydrocarbons, resulting from a worst-case credible spill via a vessel collision.

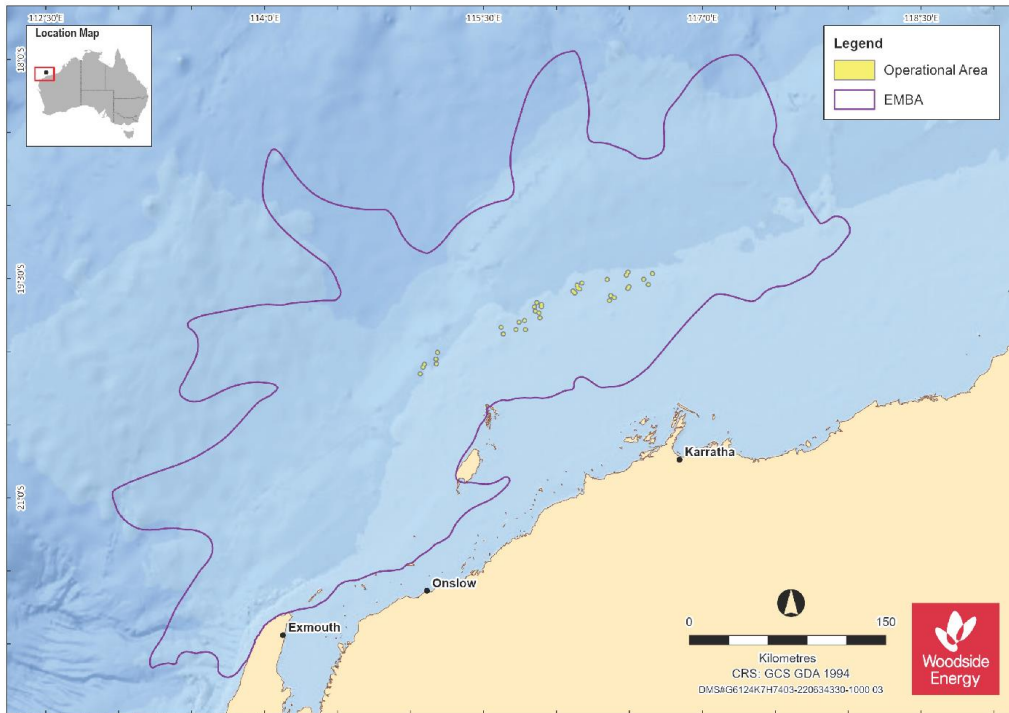


Figure 2. Environment that May Be Affected by the NWS and Julimar wellhead decommissioning activities

Mitigation and management measures

Woodside has undertaken an assessment to identify potential impacts and risks to the environment arising from the Julimar and NWS Wellhead Decommissioning Activity. A number of mitigation and management measures for the activity are outlined in **Table 3**. Further details will be provided in the EP.

Table 3. Summary of key risks and/or impacts and preliminary management measures for the NWS and Julimar Wellhead Decommissioning Activity

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
Planned			
Physical presence and interactions with other marine users	<ul style="list-style-type: none"> An offshore support vessel (OSV) such as an inspection, maintenance and repair vessel or semisubmersible heavy well intervention vessel will be used to conduct the activities. The OSV may be supported by a general support vessel which will perform activities including transport of equipment and materials between the 36 Operational Areas and port or to perform standby duties within the Operational Areas. The physical presence and movement of project vessels within the Operational Areas has the potential to displace other marine users. The presence of wellhead infrastructure on the seabed prior to removal also has the potential to interfere with marine users (e.g., trawling vessels). IMR activities are expected to take around three days per well and removal activities between three to ten days per well. Activities are planned to be conducted as multiple campaigns over the five-year approval period of the EP (2024 – 2028). 	<ul style="list-style-type: none"> Temporary displacement of commercial fishing activities and commercial shipping vessels. Some Operational Areas overlap different areas where other marine users are more common. These include recreational fishing areas (Glomar Shoals, Rankin Bank), a commercial shipping fairway and a defence training area. Due to the temporary and localised nature of the activity, any displacement is expected to be negligible with no lasting effect. 	<ul style="list-style-type: none"> Vessels adhere to regulatory requirements for navigational safety Establish a temporary 500 m petroleum safety zone around the OSV which is communicated to marine users. Notify relevant government departments, fishing industry representative bodies and relevant licence holders of activities prior to commencement and on completion of activities. Notify the Australian Hydrographic Office (AHO) prior to commencement of the activity to enable them to update maritime charts ensuring marine users are aware of the activity. Where activities overlap a defence area, notify Department of Defence of activities no less than five weeks prior to the scheduled activity commencement date. Consult with relevant persons so they are informed of the proposed activities. Wellhead infrastructure to be removed above the mudline once wells are accepted as permanently abandoned.
Physical presence: disturbance to benthic habitat	<ul style="list-style-type: none"> Subsea cleaning and preparation activities may be done using high-pressure water and brushes on Remotely Operated Vehicles (ROVs). Some sediment may need to be relocated to gain access to the wellheads. Wellhead cut and removal may result in a localised increase in turbidity and some sediment relocation. Small amounts of historical drilling fluids may also be present following wellhead removal. Use of ROVs and placement of transponders on the seabed will disturb small areas of sediment. 	<ul style="list-style-type: none"> The wellhead Operational Areas are expected to consist of sandy substrate. Some wellheads overlap the Ancient Coastline Key Ecological Feature (KEF) however these wellheads occur in sandy sediment, typical of the wider region. One wellhead overlaps the Glomar Shoals KEF but is 15 km away from hard coral communities. Activities will be localised and of short duration, physical impacts to the seabed are expected to be negligible. Historical drilling activities (using water based and non-water-based mud) would have deposited some drilling mud and cuttings to the seabed. Some residual amounts may remain. These impacts are expected to be highly localised and not significant to receptors. 	<ul style="list-style-type: none"> No additional controls required to manage impacts to an ALARP and acceptable level.

¹ This EP is currently under assessment – these mitigation and management measures are subject to change through the consultation and assessment process and may not represent content in the publicly available EP or in the final plan once accepted.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
<p>Routine acoustic emissions: vessels, helicopters and mechanical equipment operation</p>	<ul style="list-style-type: none"> The operation of project vessels and positioning equipment will generate noise that will have the potential to exceed ambient noise levels. Vessel noise will be continuous during activities and transponder noise will be intermittent. Helicopter noise within the operational area will occur during helicopter take-off and landing. Wellhead removal operations are expected to generate additional noise through abrasive water jet or mechanical cutting methods. 	<ul style="list-style-type: none"> Elevated underwater noise may affect marine fauna, including marine mammals, turtles and fish in three main ways: <ol style="list-style-type: none"> By causing direct physical effects, including injury or hearing impairment. Hearing impairment may be temporary or permanent. Through disturbance leading to behavioural changes or displacement from important areas. The occurrence and intensity of disturbance is highly variable and depends on a range of factors relating to the animal and situation. By masking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey). The frequency of the transponders is at the upper limit of the bandwidth of low frequency cetaceans. Low frequency cetaceans such as pygmy blue whales are therefore unlikely to be impacted by sound generated from the transponders. The continuous noise generated by vessels is not expected to cause temporary or permanent change in hearing sensitivity to cetaceans due to the level of exposure required to trigger this. Impacts may relate to temporary behavioural changes such as avoidance with no lasting effect. Marine turtles may avoid the low-frequency sounds generated by vessel noise. The Operational Areas do not support typical interesting habitat for marine turtles so any temporary avoidance shown will be restricted to individual turtles, with no lasting effect. No impacts to fish stocks are expected as a result of noise generated by project vessels. The Operational Areas overlap a foraging Biologically Important Area for whale shark however as the thresholds for impacts are higher than the noise generated by the activities, impacts are not expected. 	<ul style="list-style-type: none"> Comply with regulatory requirements for interactions with marine fauna to prevent adverse interactions.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
Routine and non-routine discharges: bilge water, grey water, sewage, putrescible wastes and deck drainage water	<ul style="list-style-type: none"> Routine discharge of sewage, grey water and putrescible wastes to marine environment from project vessels within the Operational Areas. Routine discharge of deck and bilge water to marine environment from project vessels within the Operational Areas. 	<ul style="list-style-type: none"> The main impact associated with ocean disposal of sewage and other organic wastes (i.e. putrescible waste) is eutrophication. Eutrophication occurs when the addition of nutrients, such as nitrates and phosphates, causes adverse changes to the ecosystem including short-term, localised impacts to water quality. No significant impacts are expected to water quality from planned discharges because of the minor quantities involved, the expected localised mixing zone, and the high level of dilution into the open water marine environment of the Operational Areas. Similarly, although some marine fauna may transit the Operational Areas, potential for impacts remains low due to the localised nature of discharges and rapid dilution. 	<ul style="list-style-type: none"> Vessel discharges will be managed according to regulatory requirements.
Routine discharge: wellhead removal and recovery	<ul style="list-style-type: none"> Small amounts of grit, flocculants, metal swarf or cement will be discharged from the cutting process. Most discharges will be confined within the well and settle on top of the permanent plug. Some discharges may be deposited around the wellhead if cutting at a shallower depth is required. Small amounts of trapped fluid (treated seawater and residual amounts of water based mud) will be exposed when the wellhead is removed. Cement operations to install an environment plug at the surface of the non water based mud (NWBM) wells will result in small releases of cement to the marine environment. 	<ul style="list-style-type: none"> The wellhead Operational Areas are expected to consist of sandy substrate. Some wellheads overlap the Ancient Coastline Key Ecological Feature (KEF) however these wellheads occur in sandy sediment, typical of the wider region. One wellhead overlaps the Glomar Shoals KEF but is 15 km away from hard coral communities. As activities will be localised and of short duration, impacts from discharges are expected to be localised and short term. Discharges as a result of wellhead removal will not result in a potential impact greater than localised burial and smothering of benthic habitats, resulting in slight and short term impacts to the seabed and/or benthic habitats, and slight and short term effects to water quality. 	<ul style="list-style-type: none"> Fluids and additives planned to be used and intended or likely to be discharged to the marine environment will have an environmental assessment completed before use. Installation of environment plug for wells containing residual NWBM.
Atmospheric emissions and greenhouse gas (GHG) emissions	<ul style="list-style-type: none"> Atmospheric emissions and GHG emissions will be generated by the project vessels from internal combustion engines and incineration activities. 	<ul style="list-style-type: none"> Emissions from project vessels could result in temporary, localised reductions in air quality in the immediate vicinity. Given the short duration of activities and exposed location of project vessels, which will lead to the rapid dispersion of the low volumes of atmospheric emissions, the potential impacts are expected to be localised and of no lasting effect. 	<ul style="list-style-type: none"> Comply with regulatory requirements for marine air pollution and GHG emissions reporting.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
<p>External lighting on project vessels</p>	<ul style="list-style-type: none"> Project vessels will use external lighting to navigate and conduct safe operations at night, including to maintain good night visibility for crew members and to communicate the vessel's presence to other marine users. 	<ul style="list-style-type: none"> Light emissions may affect fauna (such as marine turtles and birds) in two main ways: <ul style="list-style-type: none"> Behaviour: artificial lighting has the potential to create a constant level of light at night that can override natural levels and cycles. Orientation: if an artificial light source is brighter than a natural source, the artificial light may override natural cues, leading to disorientation. Given the distance from shore (more than 40 km) and the negligible contribution of light emissions to the environment from the activity, light emissions to marine turtles are unlikely to result in more than localised behavioural disturbance to isolated transient individuals, with no lasting effect to the species. All 36 Operational Areas lie within the East Asian Australian Flyway for migratory shorebirds and therefore individuals may migrate through the area. Due to lack of suitable stopover features near the Operational Areas, impacts are expected to be limited to temporary behavioural disturbance to individuals, with no lasting effect or displacement from important habitat. 	<ul style="list-style-type: none"> Implementation of the Woodside Offshore Seabird Management Plan. Lighting will be limited to the minimum required for navigation and safe operational requirements, with the exception of emergency events.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
Unplanned			
Unplanned hydrocarbon release – vessel collision	<ul style="list-style-type: none"> Project vessels will use marine diesel fuel, meaning a vessel collision involving a project vessel or third-party during the activity may potentially result in the release of marine diesel. For a collision to result in the worst-case scenario diesel release, several factors must occur as follows: <ul style="list-style-type: none"> Identified causes of vessel interaction must result in a collision. The collision has enough force to penetrate the vessel hull and in the exact location of the fuel tank. The fuel tank must be full or at least of volume which is higher than the point of penetration. 	<ul style="list-style-type: none"> In the highly unlikely event of a vessel collision causing a release of hydrocarbons, impacts to water quality and marine ecosystems could occur. Modelling of a surface release of marine diesel at three locations (Balnaves Deep-1 (closest wellhead to Tryal Rocks), Angel-3 (closest wellhead to Glomar Shoals) and Lady Nora-2 (closest wellhead to Rankin Bank) was conducted to understand potential impacts. Marine diesel is a relatively volatile, non-persistent nature hydrocarbon with around 25% evaporating within the first 24 hours. The worst-case accumulated shoreline concentration is predicted as 7.8 g/m² at the Barrow Island and Boodie Island receptors, with 7.6 g/m² at the Muiron Island receptors. Potential impacts across the whole EMBA were assessed including receptors such as plankton, fish, marine mammals, seabirds and migratory shorebirds, tourism, recreation and commercial fisheries (for example). The potential biological and ecological impacts of an accidental hydrocarbon release as a result of a vessel collision during the activities are expected to have minor, short term impacts to species and habitats, but not affecting ecosystem function. 	<p>Preventing vessel collision</p> <ul style="list-style-type: none"> Comply with regulatory requirements for the prevention of vessel collisions and safety and emergency arrangements. Consult with relevant persons so that other marine users are informed and aware, reducing the likelihood of a collision. Develop SIMOPS management plan where multiple campaigns occur concurrently within each Operational Area. Establish temporary exclusion zones around vessels which are communicated to marine users to reduce the likelihood of collision. <p>Spill response arrangements</p> <ul style="list-style-type: none"> Arrangements supporting the OPEP will be tested to ensure the OPEP can be implemented as planned. Emergency response activities would be implemented in line with the OPEP.
Unplanned hydrocarbon release - bunkering	<ul style="list-style-type: none"> Accidental loss of hydrocarbons to the marine environment during planned bunkering/refuelling may occur caused by partial or total failure of a bulk transfer hose or fittings due to operational stress or other integrity issues. 	<ul style="list-style-type: none"> The results of the modelling undertaken for this scenario has indicated that exposure to surface hydrocarbons above the 10 g/m² threshold is limited to the immediate vicinity of the release site, with little potential to extend beyond 1 km. The biological consequences of such a small volume spill on identified open water sensitive receptors relate to the potential for slight impacts to megafauna, plankton and fish populations that are within the spill-affected area. 	<p>Preventing unplanned hydrocarbon release due to bunkering</p> <ul style="list-style-type: none"> Comply with regulatory requirements for the prevention of marine pollution. Appropriate bunkering equipment kept and maintained. Compliance with Contractor procedures for the management of bunkering/helicopter operations to reduce the likelihood and potential severity of a spill.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
Unplanned discharge – deck spills	<ul style="list-style-type: none"> Accidental discharge of hydrocarbons/chemicals from project vessel deck activities and equipment (such as cranes and winches). 	<ul style="list-style-type: none"> Unplanned discharges of non-process chemicals and hydrocarbons may decrease the water quality in the immediate vicinity of the release. Only small volumes (approximately <100 L) would be expected to potentially occur, resulting in very short-term impacts to water quality, and limited to the immediate release location. No significant impacts from the accidental discharges described would be anticipated due to the offshore/open water locations, low sensitivity of surrounding water quality and high level of dilution into the open water marine environment of the Operational Area. 	<ul style="list-style-type: none"> Comply with regulatory requirements for the prevention of marine pollution. Liquid chemical and fuel storage areas are bunded or secondarily contained when they are not being handled/moved temporarily. Maintain and locate spill kits in close proximity to hydrocarbon storage areas and deck areas for use to contain and recover deck spills.
Unplanned discharge of solid hazardous/non-hazardous solid waste/equipment	<ul style="list-style-type: none"> Accidental loss of hazardous or non-hazardous wastes (including dropped objects) to the marine environment. Generation and disposal of waste from infrastructure removal. Dropped objects resulting in disturbance of benthic habitat. 	<ul style="list-style-type: none"> The potential impacts of hazardous or non-hazardous solid wastes and equipment accidentally discharged to the marine environment include contamination of the environment as well as secondary impacts relating to potential contact of marine fauna with wastes. Incorrect classification of waste can also result in inappropriate disposal of hazardous decommissioning wastes that could contaminate non-hazardous waste streams. This has the potential to result in contamination to air, soil and water during disposal. In the unlikely event of loss of an object being dropped into the marine environment, potential environmental effects would be limited to localised physical impacts on benthic communities. 	<ul style="list-style-type: none"> Comply with regulatory requirements for the prevention of marine pollution and handling of hazardous wastes. Disposal of any hazardous waste associated with the subsea infrastructure will comply with relevant State and Commonwealth legislation. Project vessel waste arrangements which require waste segregation, recording and safe handling of waste according to their hazard and recyclability class. Solid waste/equipment dropped to the marine environment will be recovered where safe and practicable to do so. The project vessels' work procedures for lifts, bulk transfers and cargo loading which require safe lifting and management of loads. Wellheads will be cut and walked to beyond a calculated drop radius before being recovered if there is potential to cause damage to live infrastructure. Undertake engagement with waste contractors to identify potential waste disposal pathways. Implement an infrastructure disposal and resource recovery strategy that tracks waste, considers the waste hierarchy and considers contingency procedures for dealing with contaminants.

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts	Proposed Mitigation and/or Management Measure ¹
Physical presence: vessel collision with marine fauna	<ul style="list-style-type: none"> Vessel movements have the potential to result in collisions between project vessel (hull and propellers) and marine fauna. Project vessels would typically be stationary or moving at low speeds when supporting the Petroleum Activities Program; general support vessels typically transit to and from the Operational Areas between two and four trips once per week (such as to port). 	<ul style="list-style-type: none"> BIAs overlapping the Operational Areas include the pygmy blue whale distribution and migration BIA, the flatback turtle interbreeding buffer BIA and critical habitat area and the whale shark foraging BIA. Given the absence of aggregations, the size of the BIAs in total, duration of activities within the Operational Areas and the slow speeds at which project vessels operate, collisions with cetaceans, marine turtles and whale sharks are considered highly unlikely. Given the adopted controls, it is considered that if a collision or entanglement were to occur, it will not result in a potential impact greater than a localised impact to environmental receptors, with no lasting effect to marine fauna populations. 	<ul style="list-style-type: none"> Comply with regulatory requirements for interactions with marine fauna to reduce the likelihood of a collision occurring.
Accidental introduction of invasive marine species (IMS)	<ul style="list-style-type: none"> Project vessels have the potential to introduce IMS to the Operational Areas through marine biofouling (containing IMS) on vessels, as well as within high-risk ballast water exchange. There is also a remote potential that cross contamination between vessels can also occur (such as IMS translocated between project vessels) or onto benthic habitat within shallower areas. 	<ul style="list-style-type: none"> There is a more than 15 km from the Angel 3 Operational Area to the closest shallow water habitat (Glomar Shoals) that may be susceptible to the introduction and subsequent establishment of IMS. The deep offshore open waters of the other 35 Operational Areas (which are more than 70 m deep) are not conducive to the settlement and establishment of IMS. These Operational Areas are away from shorelines and critical habitat. The likelihood of IMS being introduced and establishing viable populations within these Operational Areas or immediate surrounds is considered remote. The short duration (up to ten days) of operations further reduces the risk of IMS introduction and subsequent establishment. 	<ul style="list-style-type: none"> Project vessels will manage their ballast water using one of the approved ballast water management options, as outlined in the Australian Ballast Water Management Requirements. Woodside's IMS risk assessment process will be applied to project vessels and immersible equipment undertaking the activities.

Feedback

Woodside consults relevant persons in the course of preparing Environment Plans to notify them of the activity and to obtain relevant feedback to inform its planning for proposed petroleum activities in the region.

If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information, please contact Woodside before 24 August 2023 via:

E: Feedback@woodside.com
Toll free: 1800 442 977

You can subscribe on our website to receive Consultation Information Sheets for proposed activities:


www.woodside.com/sustainability/consultation-activities.

Please note that stakeholder feedback will be communicated to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) as required under legislation. Woodside will communicate any material changes to the proposed activity to affected stakeholders as they arise.

Please note that your feedback and our response will be included in our Environment Plan for the proposed activity, which will be submitted to NOPSEMA for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth) or the *Petroleum (Submerged Lands) (Environment) Regulations 2009* (Cth) and support other regulatory submissions associated with the planned activities.

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

3.47 Woodside Summary Consultation Information Sheet (sent to all Traditional Custodian relevant persons) – August 2023



CONSULTATION

INFORMATION SHEET

August 2023

NORTH WEST SHELF AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING

This is a summary of the activity in plain English. More detailed information is included in the North West Shelf and Julimar Exploration Wellheads Decommissioning Information Sheet (July 2023).

Overview

Woodside is planning to decommission (remove) thirty-six (36) historical exploration wellheads that were previously used to explore for oil and gas. A wellhead is the piece of equipment that connects the well to the drilling equipment during the exploration drilling phase prior to installing permanent barriers in the well. Each wellhead is approximately 3-4 metres high above the seabed in most cases. The activity will be divided into two parts:

1. Ongoing inspection, maintenance, and repair (IMR) - this includes use of equipment to inspect the condition of the wellhead and inside of the well.
2. Removal - uses cutting equipment to remove the wellhead from the seabed and recover back to a vessel for processing on land.

Woodside is planning to start removing some of the wellheads, and ongoing IMR, upon acceptance of the Environment Plan, and the aim is to start work around the start of 2024. Seven (7) of the wells are currently accepted by the Government Regulator as permanently abandoned. This means permanent plugs have been installed in the wells to prevent gas or oil release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned and wellheads will be removed once this has been confirmed. A map showing the location of the work is below.

1 North West Shelf and Julimar Exploration Wellhead Decommissioning - Summary Information Sheet | August 2023

Work Method

Inspection, Maintenance and Repair (IMR) – A vessel will deploy an underwater remotely operated vehicle (ROV) to inspect the wells including taking photos and video. Logging equipment, which is lowered into the well to verify the integrity of well barriers and detect and residual hydrocarbon, will also be deployed where required. These inspection methods allow knowledge to be gained on the status of the wellhead on the seafloor and status of well barriers.

Removal – A vessel will deploy an ROV and cutting equipment to the seafloor. Depending on the status of the wellhead, the cutting equipment will either use internal abrasive water jetting, mechanical internal cutting tool or an external diamond wire saw. Abrasive water jetting uses high pressure water with grit particles, and mechanical internal cutting tool uses knives to cut the inside of the wellhead below the seafloor. A diamond wire saw would cut the wellhead above the seafloor, close to the mudline. The wellhead is then lifted by a crane to the vessel where it is transported back to land for disposal.

Environmental Impacts and Management

This work program includes Planned Activities but may also result in Unplanned Activities. Both Planned and Unplanned Activities may impact the environment. Woodside manages the work program to reduce impacts and risks to as low as practical.

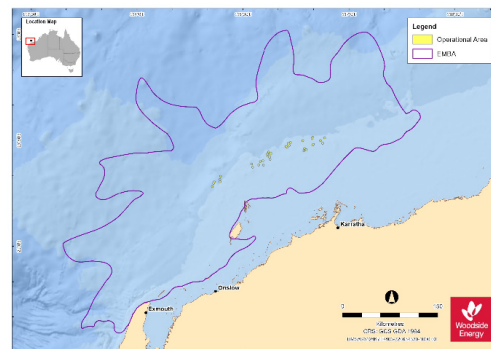
Planned Activities are activities that Woodside knows will happen as part of this work program. For example, Planned Activities will include other marine users being temporarily stopped from accessing the work area, and the marine vessels used for the work may generate underwater noise, light emissions, atmospheric emissions, and routine discharges (such as sewage, waste, and deck drainage), and other authorised waste. Removal of wellheads and use of ROVs near the seabed may also result in seabed disturbance.

Unplanned Activities are not planned as part of the work program, but may be the result of an accident, incident, or emergency situation. It is highly unlikely that there will be an Unplanned Activity. Unplanned

Activities might include a spill of fuel or oil from a vessel collision, a spill on the deck of a vessel (such as during refuelling), unplanned seabed disturbance, accidental collision with marine animals, waste entering the environment and accidental introduction of invasive species from outside the region.

A table showing all planned and unplanned activities, potential impacts, and management measures for each is included in the attached Information Sheet, Table 3.

The total area over which unplanned events could have environmental impacts is shown in the map below. This is referred to as the environment that may be affected (EMBA). The location in which the Subsea Infrastructure Installation activity will occur, known as the Operational Area, is also shown on the map below. In the instance of a highly unlikely event such as a fuel spill from a vessel collision, the entire EMBA will not be affected. The part of the EMBA that is affected will only be known at the time of the event.



Providing feedback

If you have an interest in the area of the "environment that may be affected" (EMBA) by this work program and would like more information or have any concerns, you can tell Woodside by calling **1800 442 977** or sending an email to Feedback@woodside.com.au. Please contact Woodside before **1 September 2023** so your questions or concerns can be considered during the environmental approval process.

If you would prefer to speak to the government directly, they can be contacted on **+61 (0)8 6188 8700** or send an email to communications@nopsema.gov.au.

Conclusion

Woodside produces energy that Western Australia, Australia, and the world needs. Woodside has made this energy from its oil and gas projects in Western Australia for over 35 years safely, reliably, and without any major environmental incident. Woodside is very proud of this legacy.

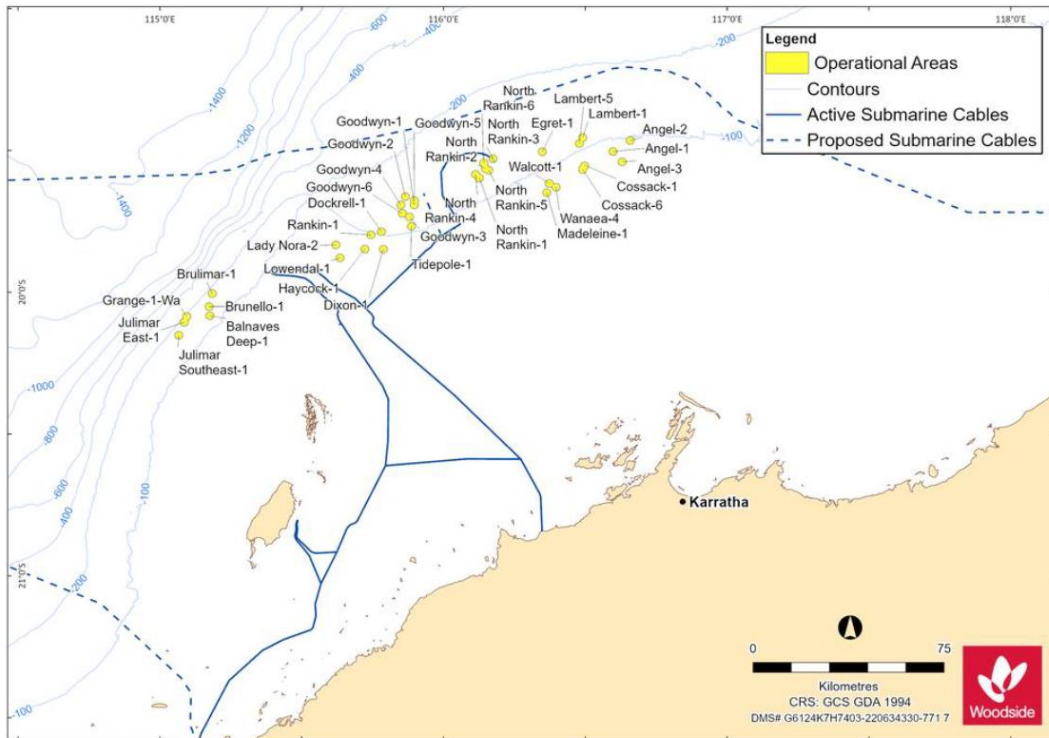
There are always potential risks with projects like this. Woodside has carefully planned this work program so that the risk of environmental impact is reduced to as low as reasonably practical and of an acceptable level. There are also government laws in place to protect the environment. Woodside complies with these laws and has systems in place to keep following these laws and rules for each project it undertakes.

If you would like information about Woodside's work to study and care for the environment, you can find it at <https://www.woodside.com/sustainability/environment>.

Further Information

You can find the details Consultation Information Sheet for proposed activity on our website: <https://www.woodside.com/sustainability/consultation-activities>.

North West Shelf and Julimar Exploration Wellhead Environment Plan



3.48 Newspaper advertisements in The West Australian, The Australian, Pilbara News, Midwest Times, NorthWest Telegraph – 19 July 2023

The West Australian - 19 July 2023

Funeral Notices

THEBARI
Family and friends are warmly invited to attend the funeral service of the late Mrs Rose Anne Thebari (nee Kowalski), who passed away peacefully at 11:00am on Friday 17 July 2023 at the North Perth Community Care, 345 Wharf St, Cloverdale, Perth, WA. The funeral service will be held on Friday 18 July 2023 at 11:00am at the Crematorium, 315 Spring Valley Rd, Fremantle. Cremation commencing at 5:00pm. Family and friends are invited to wear their favourite colour to celebrate her life.

DIETHERINGTON FUNERAL
holborn@dietherington.com.au
08 9492 8249
WA Family Owned

THOMAS
The Funeral Service for Mr Jeremy Craig Thomas of 1575 Central Highway, Fremantle will be held at the Fremantle Crematorium, 315 Spring Valley Rd, Fremantle, on Wednesday 19 July 2023 at 10:30am. Friends are invited to attend. Please gather at the Crematorium.

BOWBRA & O'DEA
FREMANTLE
312 SOUTH STREET
MELTON 9208 7744
WA Family Owned
www.bowbroadea.com.au

THORPE
A service to celebrate the life of the late Colin Thorpe will be held at 10:00am on Wednesday 19 July 2023 at the Crematorium, 315 Spring Valley Rd, Fremantle. Family and friends are invited to attend. (parking available off Park Street)

Rudnow & Chipper FUNERALS
SUBIACO 08 9551 5888

TRINCHES
The Funeral Mass for Mr Francesco Trinchetti will be celebrated at St Francis Xavier Church, 279 Forrest Road, Perth, WA, commencing at 10:00am on Tuesday 18 July 2023. The casket will leave the Church at the conclusion of the mass and will be escorted to the Railway Road Crematorium, for Cremation services to be held at 12:30pm.

Vicki Priddy and Family will be placed in St Francis Xavier Church, 279 Forrest Road, Perth, WA, on Wednesday 19 July 2023, at 10:30am.

Loanne O'DEA
1307 ALBANY HWY
GARDINER 9461 7153
WA Family Owned
www.loanneodea.com.au

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Public Notices

DECEASED ESTATES

THE ESTATE OF ELIZABETH MARGARET VANCE
DATE OF DEATH: 20 January 2022

GENERAL

ROAD TRAFFIC ACT 1974

NOTICE OF INTENTION TO APPLY FOR LICENCE TO AN UNLICENSED DRIVER TO CONSTITUTE A VEHICLE

ROAD TRAFFIC ACT 1974

NOTICE OF INTENTION TO APPLY FOR LICENCE TO AN UNLICENSED DRIVER TO CONSTITUTE A VEHICLE

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ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 63 005 482 986) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity Summary	Closing management and decommissioning of 33 well's occluding inspection, maintenance and repair (OIR) and facilities to remove well heads and associated infrastructure from the seabed.
Location	Approximately 87 km north-west of Carnarvon at class 5a shelf.
Commencement Date	Anticipated January 2024, pending approvals, vessel availability and weather conditions.
Estimated Duration	Approximately 1 day to 10 days depending on amount per well. Approximately 5 days expected for 98% completion.

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP).

Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement and other vessel impacts (such as noise, light, air emissions and marine disturbances), impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, potential seabed disturbance, introduced marine species, accidental loss of cargo or other discharges.

Figure 1 illustrates the indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.

Figure 1 The indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGSA) and other regulatory submissions associated with the planned activities.

Detailed consultation information sheets are available at: www.woodside.com/sustainability/consultation-activities if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.

NOPSEMA has published a brochure entitled Consultation on offshore petroleum environment plans – Information for the Community, to help community members who may be relevant, persons understand the consultation requirements and how to effectively participate in consultation, which is available at: www.nopsema.gov.au.

If you would like to comment on the proposed activities outlined above, please contact Woodside before **24 August 2023** via:

E: Feedback@woodside.com
Toll free: 1800 442 977

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

COPYRIGHT MATERIAL MUST NOT BE REPRODUCED WITHOUT PERMISSION OR PASSED ON TO ANY THIRD PARTY. CONTACT: SYNDICATION@WA.NEWS.COM.AU

ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 63 005 482 966) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity Summary:	Designing, managing and decommissioning of 30 wells including production infrastructure and water (WSE) and activities to remove wellheads and associated infrastructure from the seabed.
Location:	Approximately 170km northwest of Darwin in Commonwealth waters.
Commencement Date:	Activities are expected to start in 2023, pending approvals, and will continue until 2025.
Estimated Duration:	Approximately 3 years to 2025 (dependent on approvals).

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP).

Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Figure 1 illustrates indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.



Figure 1. The indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan.

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA) and support other regulatory submissions associated with the planned activities.

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If you would like to comment on the proposed activities outlined above, please contact Woodside before 24 August 2023 via:

E: Feedback@woodside.com
Toll free: 1800 442 977



Woodside Energy Ltd
Woodside Energy Julimar Pty Ltd



Education Minister Tony Bligh (right) has unveiled measures to stop violence in schools.

Anti-violence crackdown on social media, angry parents

BY BETHANY HOGG

Principals will be urged to use "the full letter of the law" to ban abusive parents and violent intruders from public schools as sweeping rules of aggression force the Cook Government to ramp up protections for staff and students.

School leaders will get more support in kick aggressive adults off school grounds and bar them from classrooms for firing off abusive remarks on social media as part of a new anti-violence campaign launched Monday.

Students who share video footage of other students punching, kicking or slapping one another will face automatic suspension, along with those who start or film fights.

And parents are being warned they should model respectful behaviour for their children as students return to school for the start of third term.

Aimed at appeasing principals' and teachers' groups, who claim the Government's 30-point plan to combat school violence released in 2021 did not provide enough support for school leaders, the updated plan encourages principals to make better use of existing legislative tools.

Education Minister Tony Bligh said even though principals could previously apply for a prohibition order banning an adult from a school site for up to 90 days, the option was rarely used. Similarly, an average of

just one violence restraining order or misconduct restraining order had been issued to school staff each year for the past five years.

"There's been a reluctance to use these powers previously for adults on school sites," he said. "We're empowering the principal, if you need to use the full letter of the law to make your school a safe, nurturing environment for education... we're providing clear guidance on how they're to go down that route."

"We are also saying that this can be used for social media abuse." Dr Bligh said principals responding to abuse, threats or violence would have access to a new dedicated email and phone helpline, as well as extra training on managing students with complex and challenging behaviours.

"What we've been told is that principals felt alone," he said.

The number of alternative learning settings, where the State's most aggressive students are temporarily sent after being excluded from their own school for violence, will also increase from 10 to 12. Principals will have the power to suspend a student for posting footage of a fight on social media or sharing it with others, even if they didn't film it. Under the previous rules, students faced automatic suspension for filming a fight.

The West Australian has reported on a string of violent incidents in public schools this year, includ-

ing allegations a 21-year-old man armed with a gun and a hammer threatened students and staff at Sevenoaks Senior College in February.

An investigation found shocking cases of student violence branded as "smashes" or "fights" were frequently posted to platforms such as TikTok, Snapchat and Instagram, including images from Kinross College, Thornlie Senior High School and Warburton Community High School.

Harrowing footage emerged in May of teachers under attack as they tried to stop a brutal assault against a student by intruders at Churchill Senior High School.

Dr Bligh said student behaviour was strongly influenced by the way adults conducted themselves.

Some parents were setting a bad example by sending "inflammatory" emails and social media communications, or barging into schools "demanding to meet a staff member without an appointment and becoming aggressive".

He pointed to one example of a parent at a high school in a well-off area who had persistently abused staff, both online and in person for months, "by constantly coming into the school office engaging in verbal aggression".

New figures show schools reported 127 incidents of verbal, written or cyber threats by adults against staff in the first half of this year compared with 198 for all of 2018.

Classifieds

9482 2300 Place an ad: regionalclassifieds@wanews.com.au
or go to: midwesttimes.com.au

PUBLIC NOTICES

BIBLE STUDY GROUP
A response is invited to contact James Lester on 0419 931 392, by anyone willing to work towards a Bible study group in Curramore, who share with him interest and belief in the Bible as the historic, redemptive Word of God and the Lord Jesus Christ as the only Head and Redeemer of His Church, as reformed by the Great Protestant Reformation of the 16th Century and summarised by the Westminster Confession of Faith, the subordinate Standard of Faith of, for example, the Presbyterian Church of Australia.

Public Notice

SCHEDULE 5 – FORM OF ADVERTISEMENT
Impounded at Animal Management Facility 11 Deves Road, Lillilanga, 1 x male sheep with no ID tag, impound number 14587. Council hereby gives notice that if this animal is not claimed by Monday 24/07/2023, the animal will be sold at auction on Tuesday 25/07/2023 at 12:00PM on site at above address.
You can view the animal on the Council Greater Geraldton WA Gov website or by contacting Council direct on 9956 5650 for further information.
Chris Lee - Acting Chief Executive Officer

Death Notices - All notices will be published before the 24th family notice unless otherwise advised. Notices requested in a foreign language MUST have the English translation printed after the foreign language.



Government of Western Australia
Department of Transport

Declaration of NOTICE TO IDENTIFY

MOORING REGULATION 1986 UNKNOWN VESSEL OWNER

The 'Beach Shack' being a blue coloured, plywood construction, half cabin vessel - Registration number 87248, which is approximately 10.40m in length, was observed on navigable waters to be secured to DoT Courtesy mooring C0011, in the vicinity of the Fascine, in the Carnarvon Mooring Control Area. The owner of the vessel is unknown.

In the opinion of a Department of Transport (DoT) Inspector appointed under the Mooring Regulations 1986, it is requested that:

- 1) The owner of the vessel contacts the DoT and
- 2) Removes the vessel from the mooring to which it is currently moored as it does not hold authorisation from the Department of Transport.

Additionally, in accordance with the Shipping and Pilotage Act 1967, Regulation 6 (2) pursuant to the cost of removal of this vessel will be a debt due to the Crown and will be recovered either by action in a court of competent jurisdiction against the owner and/or by the sale of the vessel.

Queries in relation to this matter can be directed to the Licensing Team Leader on mobile telephone 0439 470 831 or email maritime.licensing@transport.wa.gov.au

Chris J Mather

A/Executive Director Maritime
Department of Transport
Delegate of the Chief Executive Officer

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ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 63 005 482 986) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity summary:	Ongoing management and decommissioning of 30 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Location:	Approximately 177 km northwest of Dampier at stated wellhead.
Commencement timing:	Anticipated around Q1 2024, pending approval, vessel availability and weather conditions.
Estimated duration:	Approximately 3 days to 10 days expected for removal per well. Approximately 3 days expected for IMR per well.

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP).

Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Figure 1 illustrates indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.



Figure 1 The indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (CPH) and support other regulatory submissions associated with the planned activities.

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If you would like to comment on the proposed activities outlined above, please contact Woodside before

24 August 2023 via:
E: Feedback@woodside.com
Toll free: 1800 442 977



NorthWest Telegraph - 19 July 2023

12 NEWS

NorthWest Telegraph
Wednesday, July 19, 2023



Video footage of a fight at Geraldton's Champion Bay Senior High School.

Plans to rein in school violence

BETHANY HIATT

Principals will be empowered to use "the full letter of the law" to ban abusive parents and violent intruders from public schools as surging rates of aggression force the Cook Government to ramp up protections for staff and students.

School leaders will get more support to kick aggressive adults off school grounds and bar them from classrooms for firing off abusive remarks on social media as part of a new anti-violence campaign being launched today.

Students who share video footage of other students punching, kicking or stomping on each other will now face automatic suspension, along with those who start or film fights.

And parents are being warned they should model respectful behaviour for their children as students return to school for the start of Term 3.

Aimed at appeasing principals' and teachers' groups, who claim the Government's 10-point plan to combat school violence released in 2018 did not provide enough support for school leaders, the updated plan encourages principals to make better use of existing legislative tools.

Education Minister Tony Buti said even though principals could previously apply

site for up to 90 days, the option was rarely used.

Similarly, an average of just one violence restraining order or misconduct restraining order had been issued to school staff each year for the past five years.

"There's been a reluctance to use these powers previously for adults on school sites," he said.

"We're empowering the principal, if you need to use the full letter of the law to make your school a safe, nurturing environment for education... we're providing clear guidance on how they're to go down that route."

"We are also saying that this can be used for social media abuse."

Dr Buti said principals responding to abuse, threats or violence would have access to a new dedicated email and phone helpline, as well as extra training on managing students with complex and challenging behaviours.

"What we've been told is that principals felt alone," he said. "So we're providing them with this support now."

The number of alternative learning settings, where the State's most aggressive students are temporarily sent after being excluded from their own school for violence, will also increase from 10 to 12.

Principals will now have the power to suspend a student for posting footage of a

fight on social media if they didn't film it. Under the previous rules, students faced automatic suspension for filming a fight.

There has been a string of violent incidents in public schools this year, including allegations a 21-year-old man

brandished an axe and a hammer threatened students and staff at Sevenoaks Senior College in February.

An investigation found shocking causes of student violence branded as "smashes" or "fights" were frequently posted to platforms such as TikTok, Snapchat and Instagram.

Harrowing footage emerged in May of teachers under attack as they tried to stop a brutal assault against a student by intruders at Churchlands Senior High School.

Dr Buti said student behaviour was strongly influenced by the way adults conducted themselves.

Some parents were setting a bad example by sending "inflammatory" emails and social media communications, or barging into schools "demanding to meet a staff member without an appointment and becoming aggressive".

He pointed to one example of a parent at a high school in a well-off area who had persistently abused staff, both online and in person for months, "by constantly coming into the school office

ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 63 005 482 986) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity Summary	Ongoing management and decommissioning of 18 wells including inspection, riser removal and capping (RMC) and activities to remove wellheads and associated infrastructure from the seabed.
Location	Approximately 27km northwest of Darwin in coastal waters.
Commencement timing	Anticipated around Q2 2024, pending approvals, vessel availability and weather conditions.
Estimated duration	Approximately 5 days to 10 days expected for normal air work. Approximately 5 days expected for HR (hot) work.

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP).

Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Figure 1 illustrates indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.



Figure 1 The indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA) and support other regulatory submissions associated with the planned activities.

Detailed consultation information sheets are available at:

www.woodside.com/sustainability/consultation-activities if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.

NOPSEMA has published a brochure entitled Consultation on offshore petroleum environment plans - Information for the Community, to help community members who may be relevant persons understand the consultation requirements and how to effectively participate in consultation, which is available at: www.nopsema.gov.au.

If you would like to comment on the proposed activities outlined above, please contact Woodside before

24 August 2023 via:
E: Feedback@woodside.com
Toll free: 1800 442 977



North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

THIS COPYRIGHT MATERIAL MUST NOT BE REPRODUCED WITHOUT PERMISSION OR PASSED ON TO ANY THIRD PARTY. CONTACT: SYNDICATION@WANews.COM.AU

3.49 Newspaper advertisement in National Indigenous Times (NIT) – 25 July 2023

National Indigenous Times (NIT) – 25 July 2023

nit.com.au
SPORT
NIT 23



Port Adelaide small forward Willie Rioli. Picture: James Ebby/AFL Photos

Willie reverts to birth name

ANDREW MATHIESON

Port Adelaide told AFL fans last week that Junior Rioli will revert back to his birth name Willie, following the anniversary of his father's death last year after switching in accordance with Tjwi custom.

The forward, who was last called Willie Jr in his final season at West Coast in 2022, has returned to Adelaide from the Top End after the club granting Rioli leave for a week to attend a family memorial service.

Rioli Jr fulfilled all elements of the customary ceremony that included an official name change.

Aboriginal communities that had a relationship with the family's patriarch joined the Riolis on Friday July 14, dancing to bring back his Willie Sr's good memories while also shedding tears for the last time in a show of respect.

The widow of Willie Sr, after mourning for the past year, has stopped wearing black and can grow her hair out.

Rioli Jr had adopted the name Junior during mourning to honour his father — the brother of late South Fremantle and Richmond legend Maurice Rioli Sr — who passed away suddenly last year aged 96. Sons of fathers with the same first name adopt the junior moniker, as representative of the cultural traditions of the Tjwi Islands.

Port Adelaide released a media statement following the end of the 12-month grieving period advising the public of the name change.

Willie Sr had a decorated career at St Mary's and South Fremantle and was drafted by Hawthorn in 1990.

Port Adelaide said the Rioli family appreciated the football community for showing its respect by accepting their cultural protocols for the past 12 months.

"My father's ceremony a year on from his burial is so important to our culture," Rioli Jr told the club website earlier this month.

"I got my name back... my mum can stop carrying the pain of a widow.

"Every culture is different. Up there, we have a year of grieving.

"This is the last week of that year of paying respect to my father and our culture."

ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 83 005 482 986) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity summary:	Engage management and decommissioning of 36 wellhead structures on, maintenance and repair (R&M) and associated onshore wellhead and associated infrastructure from the seabed.
Location:	Approximately 17 km northeast of Darwin at 120°E 12°S.
Commencement timing:	Anticipated around 02:00, pending approval from relevant authorities and weather conditions.
Scheduled duration:	Approximately 3 days for 10 days expected turnover per well, approximately 3 days expected for R&M per well.

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP).

Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Figure 1 illustrates indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.




Figure 1 The Indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA) and support other regulatory submissions associated with the planned activities.

Detailed consultation information sheets are available at: www.woodside.com/sustainability/consultation-activities if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.

NOPSEMA has published a brochure entitled Consultation on offshore petroleum environment plans - information for the Community, to help community members who may be relevant persons understand the consultation requirements and how to effectively participate in consultation, which is available at: www.nopsema.gov.au.

If you would like to comment on the proposed activities outlined above, please contact Woodside before **24 August 2023** via:

E: Feedback@woodside.com
 Toll free: 1800 442 977

3.50 Newspaper advertisement in Koori Mail – 26 July

Koori Mail – 26 July 2023

Progress Update on Esso Australia's Onshore and Offshore Activities

Community Consultation Session

Esso Australia actively engages with relevant people across our operations and consults them as we work through our activities. This ongoing communication has played an essential role in how we align our approach and ensures the community's needs and expectations around this work are understood.

If you would like to learn more about our upcoming activities including across both our onshore and offshore operations, we invite you to come along to our community information session.

Drop-in to the Sanctuary Inn on Westport (126 Marine Pde, Hastings, Victoria 3915) at any time between 5.30pm and 6.30pm on Thursday 10 August 2023. Please register your interest in attending at communityANZ@exxonmobil.com by Monday 7 August 2023.

If you cannot attend this session, you can always contact us at communityANZ@exxonmobil.com.



An ExxonMobil Brand

NOTICE OF PROPOSED GRANT OF MINERAL LEASES

NATIVE TITLE ACT 1993 (CTH) SECTION 29

The Honourable Nicole Marison M.L.A., Northern Territory Minister for Mining and Industry (Department of Industry, Tourism and Trade, GPO Box 4550 DARWIN NT 0801, hereby gives notice in accordance with section 29 of the Native Title Act 1993 (Commonwealth) of her intent to do acts namely to grant the following mineral title applications.

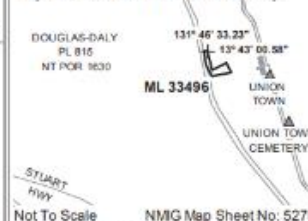
Applications to which this notice applies:

Mineral Lease 33495 sought by ROCKWASH PTY LTD, ACN 611 356 837 over an area of 40 Hectares depicted below for a term of 21 years, within the PINE CREEK locality.



Not To Scale NMG Map Sheet No: 5270

Mineral Lease 33496 sought by ROCKWASH PTY LTD, ACN 611 356 837 over an area of 11 Hectares depicted below for a term of 21 years, within the PINE CREEK locality.



Not To Scale NMG Map Sheet No: 5270

Nature of act(s): The grant of a mineral lease under the Mineral Titles Act 2010 authorises the holder to explore and mine for minerals including (but not limited to) the processing and the removal of minerals from the lease area and the treatment of tailings or other mining material the property of the Crown on the lease area, including any extractive minerals for or in connection with any of the purposes specified in the lease document for a term the Minister thinks fit and to seek renewals. The term for which it is intended to grant the mineral leases commences from the date of grant. Further information about the act may be obtained from the Department of Industry, Tourism and Trade, GPO Box 4550 DARWIN NT 0801 or Centrepoin Building 48-50 Smith Street Darwin NT 0800, telephone (08) 8999 5322.

Native Title Parties: Any person who is, or becomes a "native title party" within the meaning of the Native Title Act 1993 is entitled to the negotiation and/or procedural rights provided in Part 2, Division 3, Subdivision P of the Native Title Act 1993. Under section 30 of the Native Title Act 1993, persons have until 3 months after the notification day to take certain steps to become native title parties in relation to this notice. Enquiries concerning becoming a native title party should be directed to the National Native Title Tribunal, GPO Box 9973, Brisbane QLD 4001, or telephone (07) 3307 5000.

Notification Day: 26 July 2023

ENVIRONMENT PLAN NOTICE

Woodside Energy Ltd (ACN 63 005 482 986) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below:

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Activity summary	Ongoing management and decommissioning of 16 wells including inspection, maintenance and repair (IMR) and activities to remove well heads and associated infrastructure from the seabed.
Location	Approximately 17 km northwest of Darwin at closed landfill.
Commencement timing	Anticipated around Q2 2024, pending approvals, vessel availability and weather constraints.
Estimated duration	Approximately 5 days to 10 days expected for removal per well. Approximately 10 days expected for IMR per well.

Figure 1 describes the Operational Areas and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the relevant Environment Plan (EP). Impacts associated with the planned activities include the physical presence of up to two vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Figure 1 illustrates indicative EMBA to support persons' or organisations' understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.



North West Shelf and
Julimar Exploration
Wellhead Decommissioning
Environment Plan



Figure 1 The indicative EMBA associated with North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Consultation Participation and Feedback

Woodside is seeking to consult with relevant persons to inform the preparation of the EP for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside to identify measures to lessen or avoid potential impacts of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (CTH) and support other regulatory submissions associated with the planned activities.

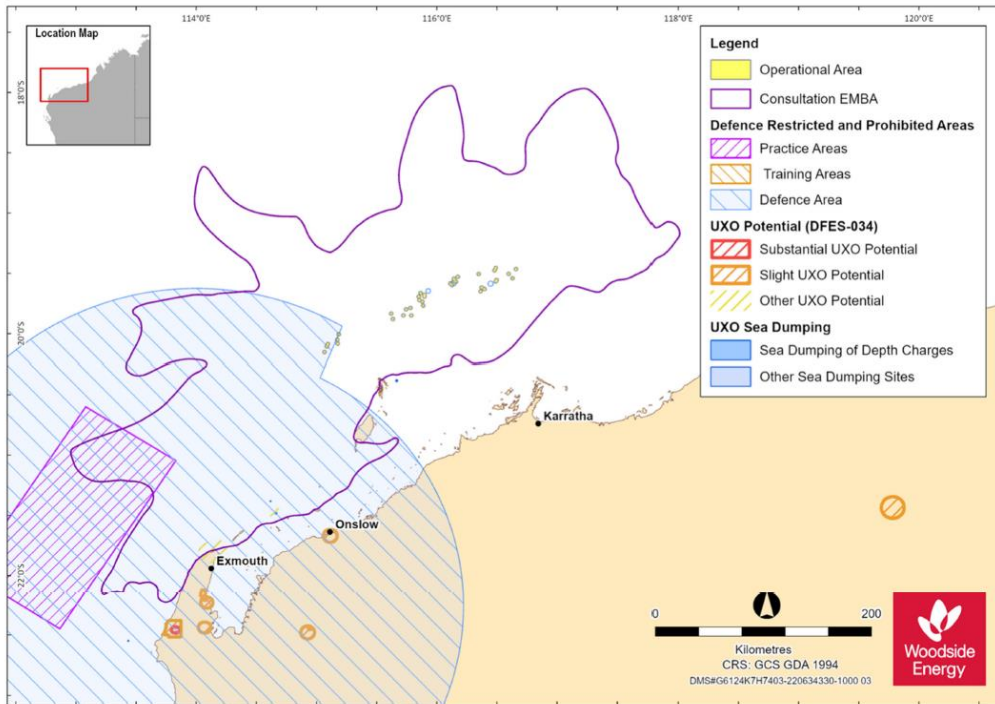
Detailed consultation information sheets are available at: www.woodside.com/sustainability/consultation-activities if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.

NOPSEMA has published a brochure entitled Consultation on offshore petroleum environment plans - Information for the Community, to help community members who may be relevant persons understand the consultation requirements and how to effectively participate in consultation, which is available at: www.nopsema.gov.au.

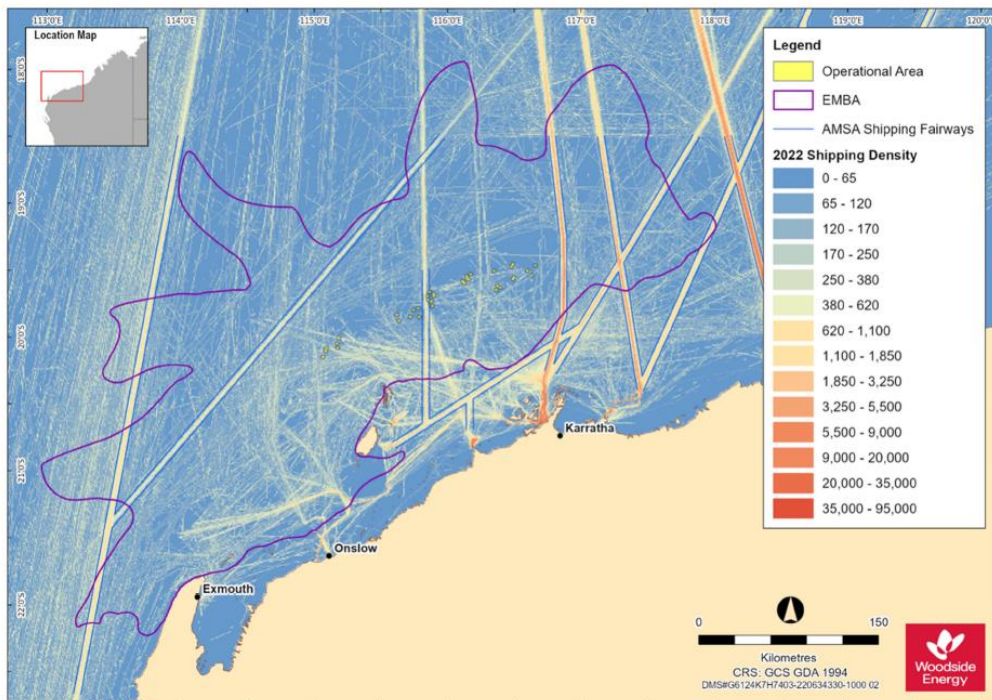
If you would like to comment on the proposed activities outlined above, please contact Woodside before

24 August 2023 via:
E: Feedback@woodside.com
Toll free: 1800 442 977

3.51 Defence zone map sent to Department of Defence (DoD) – 24 July and 7 August 2023



3.52 Shipping lanes map sent to Australian Hydrographic Office (AHO), Australian Maritime Safety Authority (AMSA) – 24 July 2023



4. Additional Consultation – August 2023

4.1 Email sent to Exmouth Community Liaison Group – 7 August 2023

Dear Exmouth Community Liaison Group,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.2 Email sent to Onslow Chamber of Commerce and Industry (CCI) – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.3 Email sent to Shire of Exmouth – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.4 Email sent to Australian Border Force (ABF), Department of Industry, Science and Resources (DISR), Australian Energy Producers (AEP - formerly APPEA), Department of Mines, Industry Regulation and Safety (DEMIRS - formerly DMIRS) – 7 August 2023

Dear Stakeholder,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.5 Email sent to Protect Ningaloo – 7 August 2023

Dear Stakeholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.6 Email sent to Australian Institute of Marine Science (AIMS) – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.7 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) – 7 August 2023

Dear [REDACTED],

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.8 Email sent to Western Australian Marine Science Institution (WAMSI) – 7 August 2023

Dear [REDACTED],

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.9 Email sent to University of Western Australia (UWA) – 7 August 2023

Dear [REDACTED],

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.10 Email sent to Cape Conservation Group (CCG) – 7 August 2023

Dear [REDACTED],

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.11 Email sent to Australian Conservation Foundation (ACF), Conservation Council of Western Australia (CCWA), Greenpeace Australia Pacific (GAP) – 7 August 2023

Dear Stakeholder,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.12 Email sent to Ningaloo Coast World Heritage Advisory Committee (NCWHAC) – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.13 Email sent to Western Australian Museum (WAM) – 7 August 2023

Dear Western Australian Museum

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

WA Historical Shipwrecks 0998

NAME	COMMENTS	WHEN_LOST	WHERE_LOST	LON	LAT
Trial	First European wreck on the Australian coast	24/05/1622	Trial Rocks	115.3736667	-20.2871667
Lady Ann	Check Lats and Longs. Oil rig tender	18/09/1982	24 miles north of NW Cape	114.2	-21.4

4.14 Email sent to Department of Primary Industries and Regional Development (DPIRD) – 7 August 2023

Dear [REDACTED] and [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.15 Email sent to Department of Planning, Lands and Heritage (DPLH) – 7 August 2023

Dear DPLH

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.16 Email sent to Director of National Parks (DNP) – 7 August 2023

Dear Director of National Parks

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plan to planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Australian Marine Parks (AMPs)

We note Australian Government Guidance on consultation activities and confirm that:

- The proposed activities are outside the boundaries of a proclaimed Australian Marine Park (AMP), with the closest well (Balnaves Deep-1) located approximately 6 km east of the Commonwealth boundary of the Montebello Islands Australian Marine Park.
- We have assessed potential risks to AMPs in the development of the proposed Environment Plan and consider that there are no credible risks as part of planned activities that have potential to impact the values of the AMPs.
- The worst-case credible spill scenario assessed in this EP is the highly unlikely event of a vessel collision resulting in a release of marine diesel. Through review of hydrocarbon spill modelling, and with consideration of a 50 ppb dissolved and 100 ppb entrained hydrocarbon threshold, the following AMPs may be contacted in the event of a spill:
 - Gascoyne (Multiple Use Zone VI)
 - Montebello (Multiple Use Zone VI)
 - Ningaloo (Recreational Use Zone IV)
- A Commonwealth Government-approved oil spill response plan will be in place for the duration of the activities, which will include notification to relevant agencies and organisations as to the nature and scale of the event, as soon as practicable following an occurrence. The Director of National Parks will be advised if an environmental incident occurs that may impact on the values of the AMP.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)*. Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

4.17 Email sent to Western Gas, Exxon Mobil Australia Resources Company, Shell Australia, BP Developments Australia, PE Wheatstone, Kyushu Electric Wheatstone, Finder No 16, KUFPEC, Santos NA Energy Holdings / Santos Ltd / Santos WA Northwest / Santos Offshore / Santos WA Southwest / Santos (BOL) / Santos WA PVG – 7 August 2023

Dear Titleholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.18 Email sent to Carnarvon Energy, Eni Australia, Vermillion Oil & Gas Australia, KATO Energy / KATO Corowa/KATO NWS/KATO Amulet, Longreach Capital Investments / Beagle No. 1 Pty Ltd, JX Nippon O&G Exploration (Australia) – 7 August 2023

Dear Titleholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.19 Email to Department of Climate Change, Energy, the Environment and Water (DCCEEW - formerly the Department of Agriculture, Water and the Environment DAWE) – 7 August 2023

Dear DCCEEW

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.20 Email to Department of Agriculture Fisheries and Forestry (DAFF) – Fisheries and Biosecurity – 7 August 2023

Dear DAFF – Fisheries and Biosecurity

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.21 Email to Chevron Australia, Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon – 7 August 2023

Dear Chevron

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.22 Email to Department of Defence (DoD) – 7 August 2023

Dear Department of Defence

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.23 Email to Australian Hydrographic Office (AHO) – 7 August 2023

Dear AHO

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.24 Letter sent to Gascoyne and Pilbara/Kimberley-Recreational Marine Users – 9 August 2023

Dear Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

Woodside is writing to you to follow up on feedback with respect to the proposed activities. You were previously sent a Consultation Information Sheet (also available on our website woodside.com), which

provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback



Please direct all responses/queries to:
Woodside Feedback
T: 1800 442 977
E: Feedback@woodside.com.au

Woodside Energy Group Ltd

ACN 004 898 982

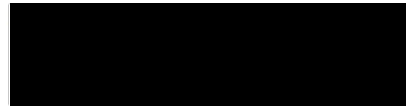
Mia Yellagonga
11 Mount Street
Perth WA 6000
Australia

T: +61 8 9348 4000

www.woodside.com

9 August 2023

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Dear Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

Woodside is writing to you to follow up on feedback with respect to the proposed activities. You were previously sent a Consultation Information Sheet (also available on our website woodside.com), which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [*Consultation on offshore petroleum environment plans*](#) –

Information for the Community to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,

Woodside Feedback



Woodside Energy
Mia Yellagonga
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E: feedback@woodside.com.au
www.woodside.com
f t in v @

4.25 Email sent to Exmouth Recreational Marine Users, Karratha Recreational Marine Users, Recfishwest, Marine Tourism Association, WA Game Fishing Association – 7 August 2023

Dear Stakeholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.26 Email sent to Australian Maritime Safety Authority (AMSA) – Marine Pollution – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.27 Email sent to Australian Fisheries Management Authority (AFMA) – 7 August 2023

Dear AFMA

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.28 Letter to Mackerel Managed Fishery (Area 2) licence holders – 9 August 2023

Dear Fishery Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

Woodside is writing to you to follow up on feedback with respect to the proposed activities. You were previously sent a Consultation Information Sheet (also available on our website woodside.com), which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback

Please direct all responses/queries to:
Woodside Feedback
T: 1800 442 977
E: Feedback@woodside.com.au

9 August 2023

A - 80

Dear Fishery Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
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Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

Woodside is writing to you to follow up on feedback with respect to the proposed activities. You were previously sent a Consultation Information Sheet (also available on our website



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T: +61 8 9348 4000
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woodside.com), which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled *Consultation on offshore petroleum environment plans – Information for the Community* to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,

Woodside Feedback



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Mia Yellagonga
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f t in v @

4.29 Email sent to North West Slope and Trawl Fishery, Western Deepwater Trawl Fishery, Tuna Australia, Australian Southern Bluefin Tuna Industry Association (ASBTIA) Fish – 7 August 2023

Dear Fishery Stakeholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.30 Email to Western Australian Fishing Industry Council (WAFIC) – 7 August 2023

Dear [REDACTED] and [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.31 Email sent to Exmouth Gulf Prawn Managed Fishery, Pilbara Trap Fishery, Pilbara Line Fishery and Pilbara Trawl Fishery – 7 August 2023

Dear Fishery Stakeholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.32 Email sent to Australian Communications Media Authority (ACMA) – 1 September 2023

Dear Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

Also attached is a communication cable map.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **21 September 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.

Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **21 September 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Kind regards,
Woodside Feedback

4.33 Email sent to Vocus – 13 September 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

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Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.

Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **21 September 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Kind regards,
Woodside Feedback

4.34 Email sent to Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel) – 24 July 2023

Dear DAFF – Fisheries and Biosecurity

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.

Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.
Relevant fisheries	<p><u>Commonwealth fisheries</u></p> <ul style="list-style-type: none"> • Operational Area: Nil • EMBA: Northwest Slope Trawl Fishery, Western Deepwater Trawl Fishery.

Biosecurity:

With respect to the biosecurity matters, please note the following information below:

Environment description:	
<p>The Petroleum Activity Area (which includes a 1500 m Operational Area around each wellhead) is located in water depths of approximately 69 to 170 m deep on the continental shelf. The bathymetry within the Petroleum Activity Area is generally flat and has a gentle seaward gradient. The seabed in the Petroleum Activity Area is likely to be dominated by soft sediment comprised of fine to coarse sands, which typify the sediments of the North West Marine Region.</p>	
Potential IMS risk	IMS mitigation management

Accidental introduction and establishment of invasive marine species	Vessels are required to comply with the Australian Biosecurity Act 2015, specifically the Australian Ballast Water Management Requirements (as defined under the Biosecurity Act 2015) (aligned with the International Convention for the Control and Management of Ships' Ballast Water and Sediments) to prevent introducing IMS. Vessels will be assessed and managed to prevent the introduction of invasive marine species in accordance with Woodside's Invasive Marine Species Management Plan. Woodside's Invasive Marine Species Management Plan includes a risk assessment process that is applied to vessels undertaking Activities. Based on the outcomes of each IMS risk assessment, Management measures commensurate with the risk (such as the treatment of internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.
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Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback

4.35 Email sent to Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel) – 7 August 2023

Dear DAFF – Fisheries and Biosecurity

Woodside previously consulted you (see email below) on its plans to submit to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by 24 August 2023.

Kind regards,
Woodside Feedback

4.36 Letter sent to Marine Aquarium Managed Fishery, Nickol Bay Prawn Managed Fishery, Onslow Prawn Managed Fishery, Pilbara Crab Managed Fishery, Specimen Shell Managed Fishery, Western Australian Sea Cucumber Managed Fishery, West Coast Deep

**Sea Crustacean Managed Fishery, Mackerel Managed Fishery (Area 2) licence holders –
9 August 2023**

Dear Fishery Stakeholder

**NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING
Environment Plan**

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
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Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Exclusionary / Cautionary Zones

A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.

Environment that May Be Affected (EMBA)

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Woodside is writing to you to follow up on feedback with respect to the proposed activities. You were previously sent a Consultation Information Sheet (also available on our website woodside.com), which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment)*

Regulations 2009 (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

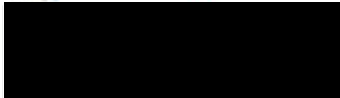
Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback

Please direct all responses/queries to:
Woodside Feedback
T: 1800 442 977
E: Feedback@woodside.com.au

9 August 2023

A - 80



Woodside Energy Group Ltd
ACN 004 898 962
Mia Yellagonga
11 Mount Street
Perth WA 6000
Australia
T: +61 8 9348 4000
www.woodside.com

Dear Fishery Stakeholder

NORTH WEST SHELF (NWS) AND JULIMAR EXPLORATION WELLHEAD DECOMMISSIONING ENVIRONMENT PLAN

Woodside previously consulted you (correspondence dated 24 July 2023) regarding its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Regards,

Woodside Feedback

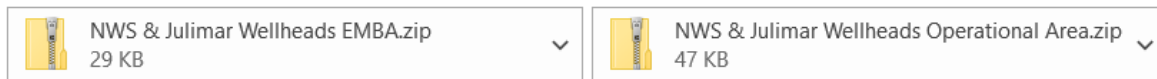


Woodside Energy
Mia Yellagonga
Karlak, 11 Mount Street
Perth WA 6000
Australia

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E: feedback@woodside.com.au
www.woodside.com
f t in o @

4.37 Email (with zip files attached) sent to AHO/AMSA – 24 July 2023

Please find attached GIS Shape Files.



Kind regards,
Woodside Feedback

4.38 Email to Commonwealth Fisheries Association (CFA) – 19 September 2023

Dear Fishery Stakeholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

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Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
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The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **19 October 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Schedule	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal per well. ~ 3 days expected for IMR per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements. A 1500 m radius Operational Area will apply around each wellhead during the activities. This includes a temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Relevant fisheries	<u>Commonwealth</u> <ul style="list-style-type: none">• Operational Area: Nil• EMBA: North West Slope Trawl Fishery, Western Deepwater Trawl Fishery
---------------------------	--

Feedback

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **19 October 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback

4.39 Email to Commonwealth Fisheries Association (CFA) – 9 October 2023

Dear Fishery Stakeholder

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **19 October 2023**.

Kind regards,
Woodside Feedback

4.40 Email to Karratha Community Liaison Group (CLG) – 7 August 2023

Dear Karratha Community Liaison Group

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.41 Email sent to Telstra – 10 October 2023

Dear Telstra,

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is consulting you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

Also attached is a communication cable map.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **9 October 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

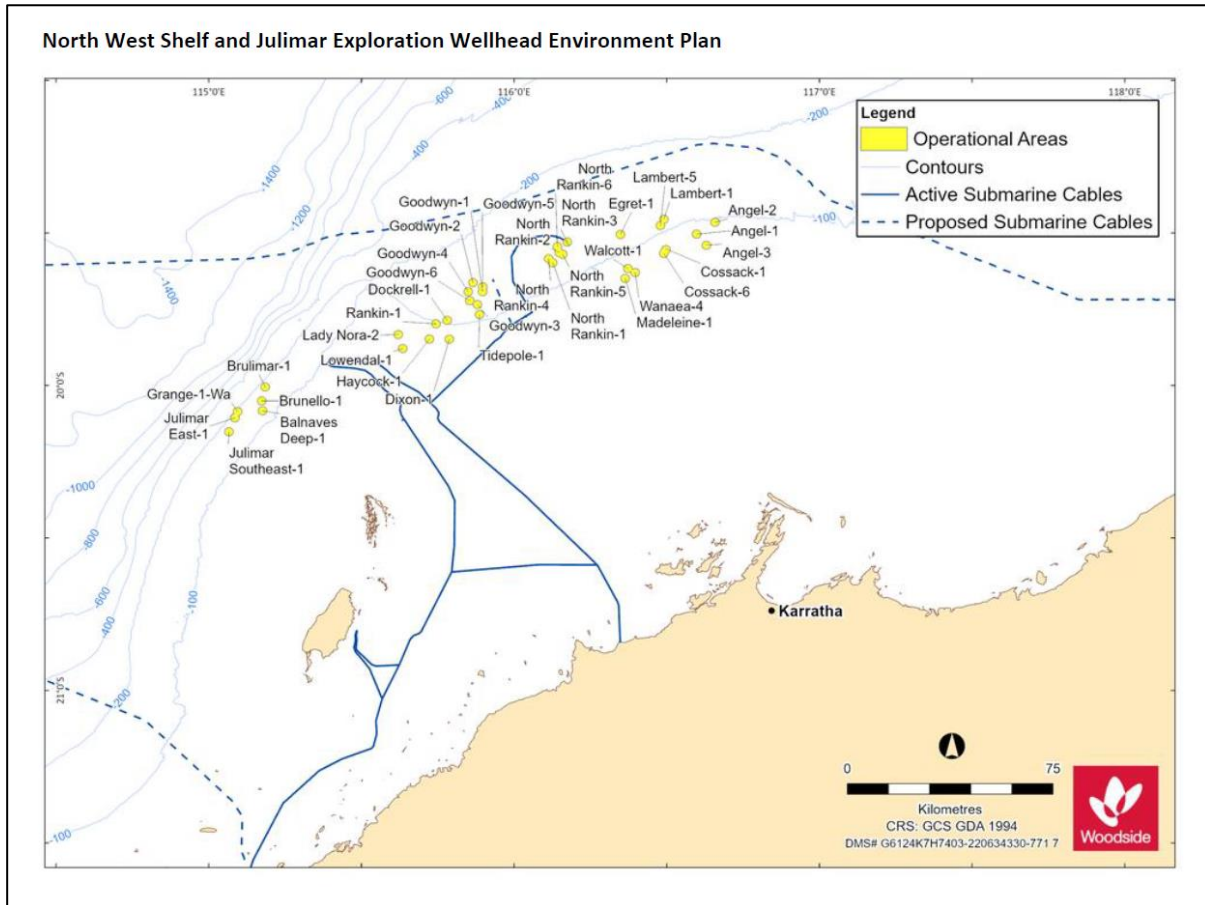
If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **9 October 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Kind regards,
Woodside Feedback

4.42 Communication cable map sent to Australian Communications Media Authority (ACMA) – 1 September 2023), Vocus (13 September 2023) and Telstra (10 October 2023)



4.43 Email to Commonwealth Scientific and Industrial Research Organisation (CSIRO) – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **24 August 2023**.

Kind regards,
Woodside Feedback

4.44 Email to Friends of the Earth – 29 November 2023

Dear [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside is planning to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel. A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.

Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,
Woodside Feedback

4.45 Email sent to Telstra – 29 November 2023

Dear Telstra,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit

Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **11 December 2023**.

Kind regards,

Woodside Energy Feedback

4.46 Email sent to OMV Australia / Sapura OMV Upstream – 4 December 2023

Dear Titleholder

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Kind regards,

Woodside Feedback

4.47 Email sent to City of Karratha – 7 August 2023

Dear [REDACTED]

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by 24 August 2023.

Kind regards,
Woodside Feedback

4.48 Email to Friends of the Earth – 11 December 2023

Dear Stakeholder,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Kind regards,
Woodside Energy Feedback

4.49 Email sent to OMV Australia / Sapura OMV Upstream – 4 December 2023

Dear Titleholder,

Woodside previously consulted you (see email below) on its plans to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Information on the proposed activity is provided in the email below and attached Consultation Information Sheet.

We would welcome your feedback at Feedback@woodside.com.au or 1800 442 977 by **18 December 2023**.

Kind regards,
Woodside Energy Feedback

4.50 Geotargeted social media campaigns (May – November 2023)

Facebook Campaign – May - November 2023

A Facebook information campaign was targeted along the coastline from Geraldton to Derby to ensure it reached all communities adjacent to the EMBA. Geotargeting locations are distributed along the coast, with 80 km radiuses around towns, cities and shires. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

As at Wednesday, 1 November 2023

Ad reach: 106,480 users

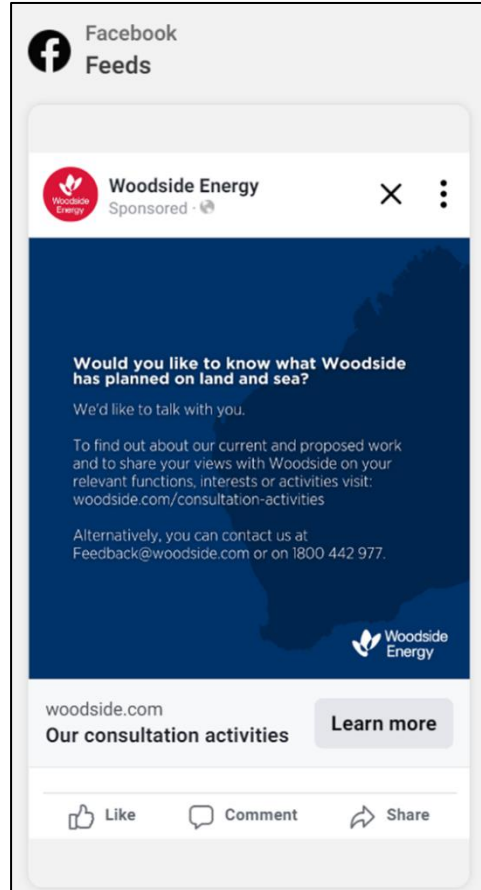
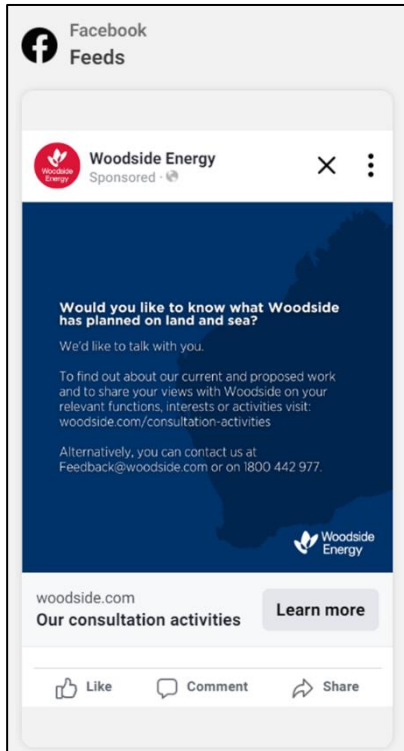
Impressions: 972,443 views

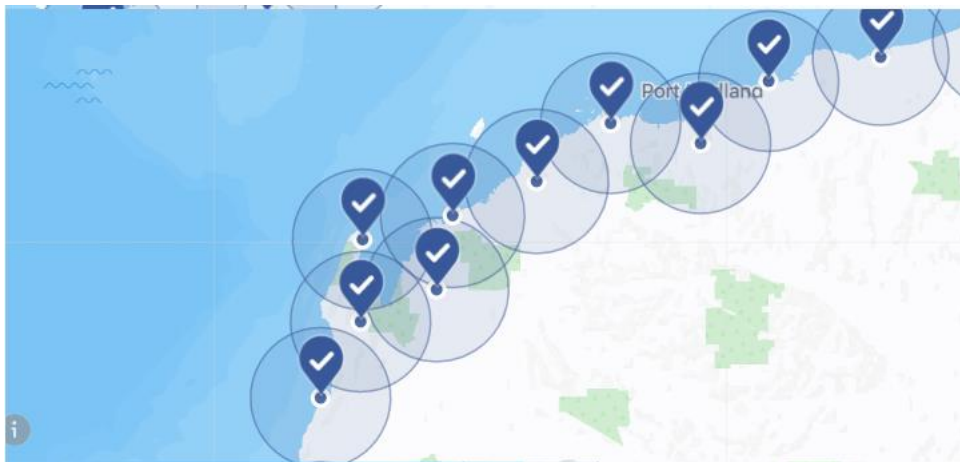
Clicks through to *Consultation Information* page: 4,218 link clicks

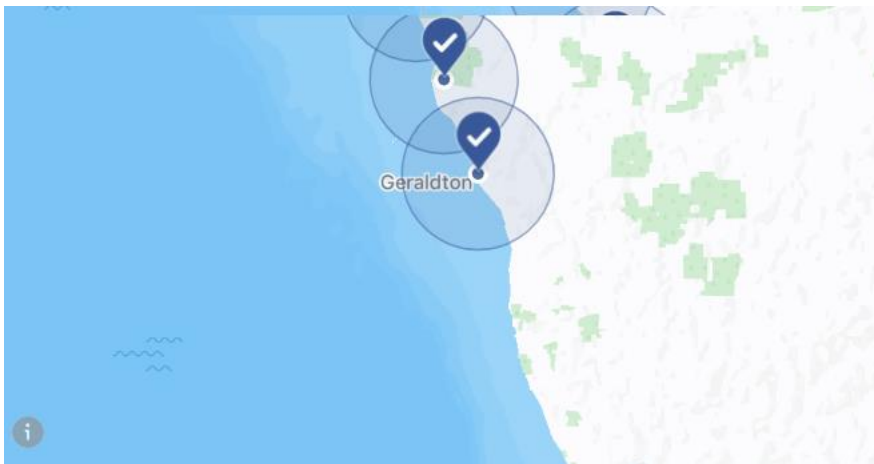
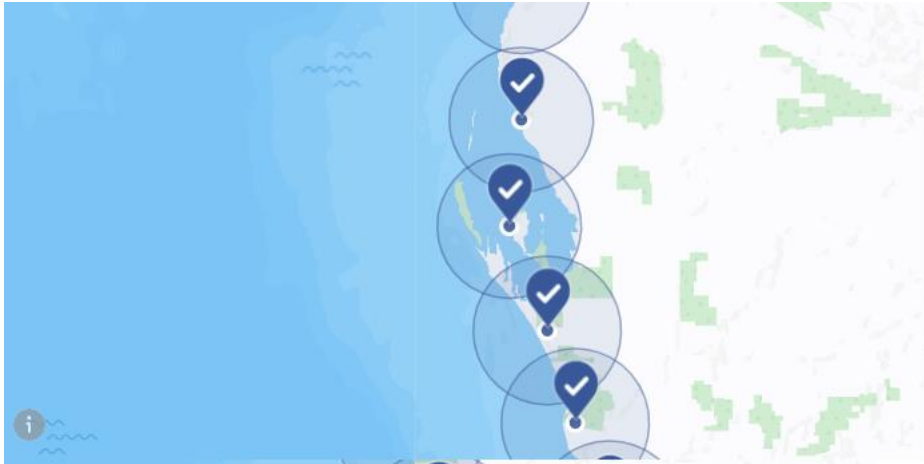
Geotargeting locations:

- Broome (+80 km)
- Carnarvon (+80 km)
- Denham (+80 km)
- Exmouth (+80 km)
- Geraldton (+80 km)
- Onslow (+80 km)
- Port Hedland (+80 km)
- Karratha (+80 km)
- Latitude -17 Longitude 122.65 Dampier Peninsula (+80 km)
- Latitude -22.75 Longitude 114.10 Exmouth Gulf (+80 km)
- Latitude -18.96 Longitude 121.94 Gingerah (+80 km)
- Latitude -27.85 Longitude 114.25 Kalbarri National Park (+80 km)
- Latitude -21.32 Longitude 116.03 Mardie (+80 km)
- Pardoo (+80 km)
- Latitude -20.94 Longitude 117.83 Sherlock (+80 km)
- Latitude -26.96 Longitude 113.95 Tamala (+80 km)
- Latitude -19.88 Longitude 121.15 Telfer (+80 km)
- Latitude -17.52 Longitude 123.56 Willare (+80 km)

- Latitude -22.43 Longitude 114.93 Yannarie (+80 km)







4.51 Geotargeted social media campaign – June 2023

Facebook Campaign – June 2023

A Facebook information campaign was targeted along the coastline from Geraldton to Derby to ensure it reached all communities adjacent to the EMBA. Geotargeting locations are distributed along the coast, with 80 km radiuses around towns, cities and shires. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

As at 11.30am 30 June 2023

Reach: 41,118

Impressions: 285,366

Link clicks: 1,236

Geotargeting locations:

- Broome (+80 km)
- Carnarvon (+80 km)
- Denham (+80 km)
- Exmouth (+80 km)
- Geraldton (+80 km)
- Onslow (+80 km)
- Port Hedland (+80 km)
- Karratha (+80 km)
- Latitude -17 Longitude 122.65 Dampier Peninsula (+80 km)

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Would you like to know what Woodside has planned on land and sea?

We'd like to talk with you.

To find out about our current and proposed work and to share your views with Woodside on your relevant location, activities or interests visit:
[woodside.com/consultation-activities](https://www.woodside.com/consultation-activities).

Alternatively, you can contact us at
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or on 1800 442 977.



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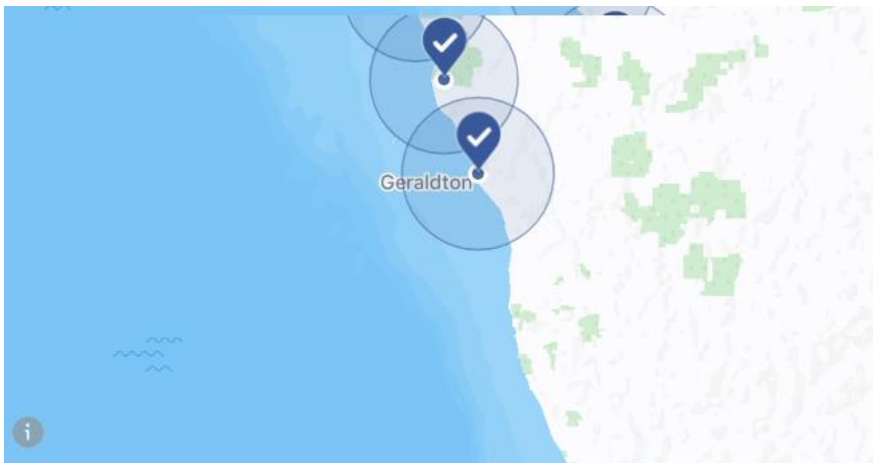
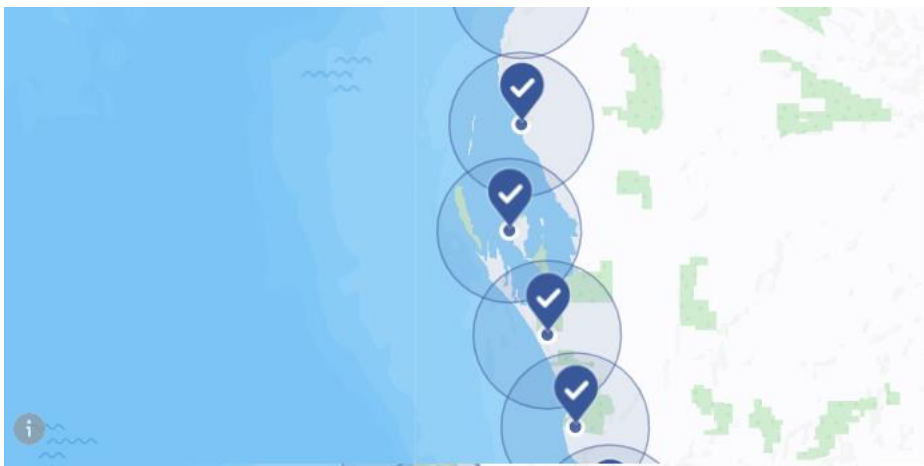
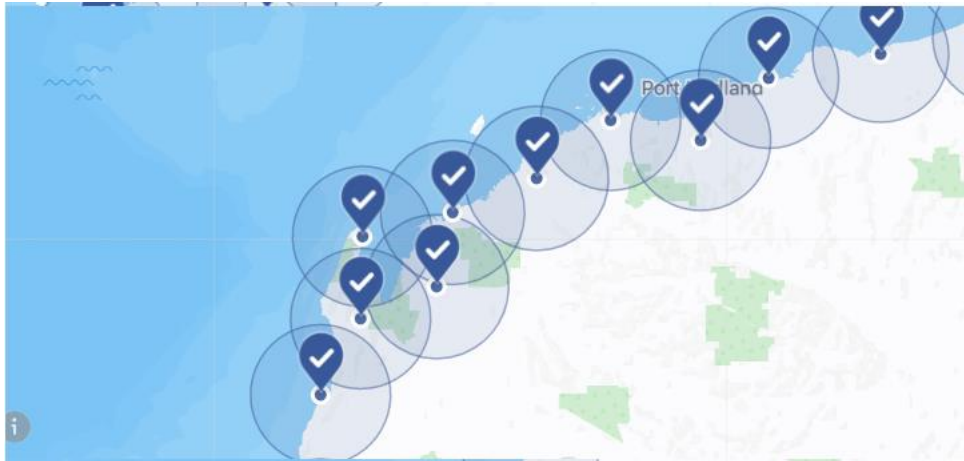


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Woodside's consultation activities

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Facebook Campaign – June 2023

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As at 11.30am 30 June 2023

Reach: 41,118

Impressions: 285,366

Link clicks: 1,236

Geotargeting locations:

- Broome (+80 km)
- Carnarvon (+80 km)
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or on 1800 442 977.



Learn more



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Alternatively, you can contact us at Feedback@woodside.com.au or on 1800 442 977.

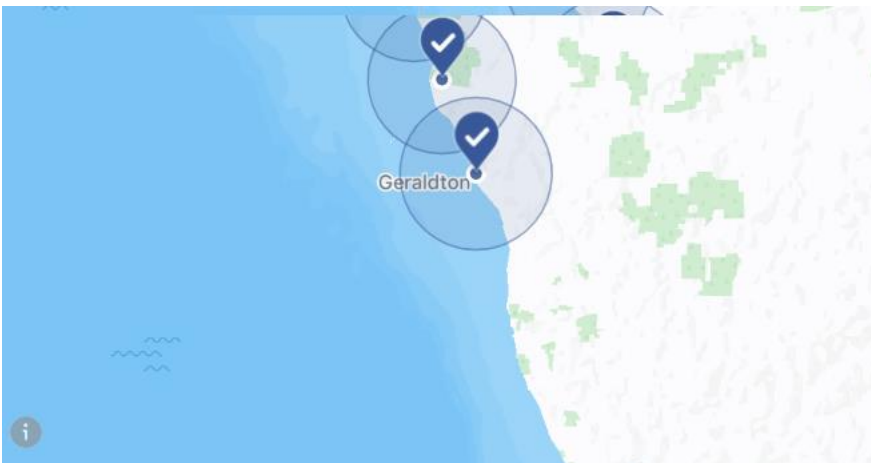
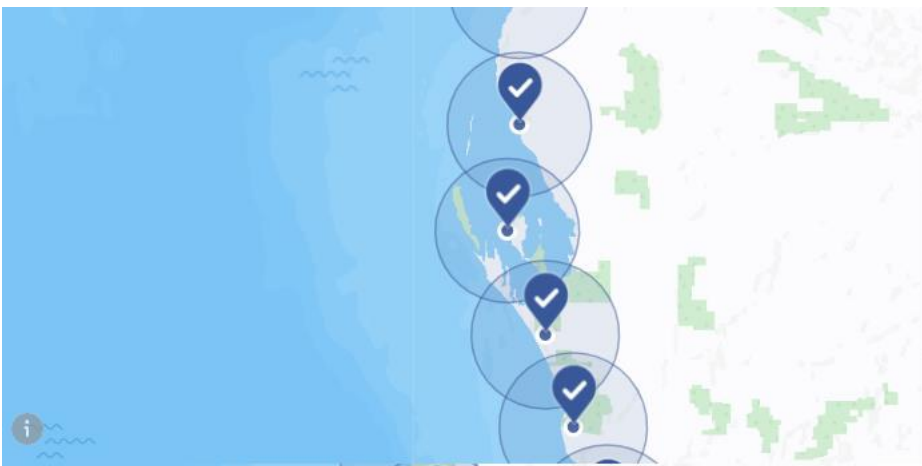
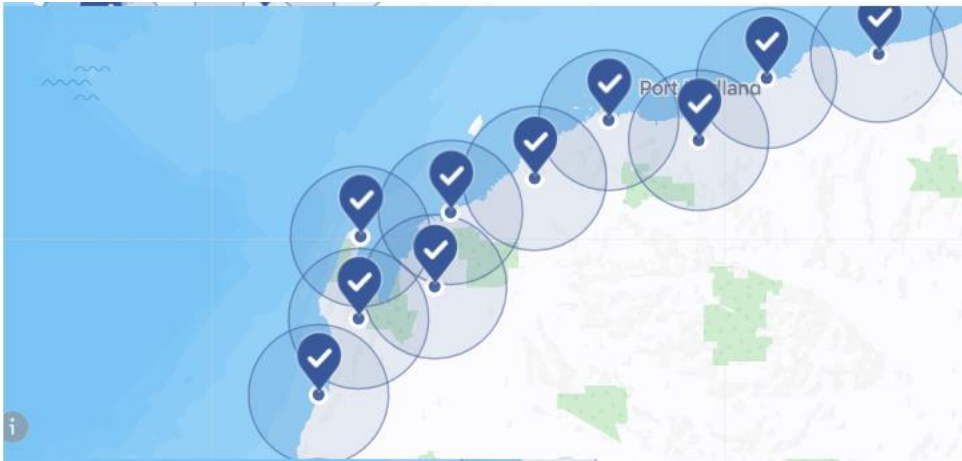


[woodside.com](https://www.woodside.com)

Woodside's consultation activities

Learn more





4.52 City of Karratha – 15 December 2023

Dear [REDACTED] and [REDACTED],

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;
- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel. A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.

Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.
Approx. Estimated Duration	~ 3 to 10 days expected for removal activities per well. ~ 3 days expected for IMR activities per well.
Exclusionary/ Cautionary Zone	Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Kind regards,
Woodside Feedback

4.53 Karratha Community Liaison Group – 15 December 2023

Dear Karratha Community Liaison Group

Woodside is planning to submit a revision of the North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan (EP) in Permit Areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L and WA-49-L.

Woodside previously consulted you on its plans to decommission thirty-six (36) historical exploration wells located across the North West Shelf of Western Australia:

- Thirty (30) wells are located in Commonwealth waters around 117 km northwest of Dampier;

- Six (6) wells are located in Commonwealth waters around 170 km northwest of Dampier.

Five (5) of the North West Shelf wells and two (2) of the Julimar wells are currently accepted by the relevant regulator as permanently abandoned.

This means permanent plugs have been installed in the wells to prevent hydrocarbon release to the environment. The remaining twenty-nine (29) wells are currently being assessed for their suitability to be accepted as permanently abandoned.

Activities under this EP include:

- Ongoing management of wells including inspection, maintenance and repair (IMR), and
- Removal of wellheads and associated infrastructure for wells accepted as permanently abandoned (including those accepted as abandoned over the life of the EP).

Environment that May Be Affected (EMBA)

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting persons or organisations who are located within the EMBA by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental impact. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release from activities within the scope the EP. The worst-case credible spill scenario for this EP is from a vessel collision resulting in loss of marine diesel.

A Consultation Information Sheet is attached which provides additional background on the proposed activities including summaries of potential key impacts and risks, and associated management measures. These are also available on our [website](#). You can subscribe to receive updates on our consultation activities by subscribing [here](#).

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) has published a brochure entitled [Consultation on offshore petroleum environment plans – Information for the Community](#) to help community members understand consultation requirements for Commonwealth EPs and how to participate in consultation.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977.

Activity: North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan

North West Shelf and Julimar Exploration Wellhead Decommissioning Environment Plan	
Summary	Ongoing management and decommissioning of 36 wells including inspection, maintenance and repair (IMR) and activities to remove wellheads and associated infrastructure from the seabed.
Permit Area	Activities will occur in permit areas WA-3-L, WA-9-L, WA-11-L, WA-5-L, WA-24-L, WA-56-L, WA-57-L, WA-58-L, WA-1-L, WA-16-L, WA-52-L, WA-16-L, WA-49-L.
Location	~ 117 km north-west of Dampier at closest landfall.
Approx. Water Depth (m)	~ 69 – 170 m.
Timing	Anticipated around Q1 2024, pending approvals, vessel availability and weather constraints.

Approx. Estimated Duration	<p>~ 3 to 10 days expected for removal activities per well.</p> <p>~ 3 days expected for IMR activities per well.</p>
Exclusionary/ Cautionary Zone	<p>Temporary 500 m exclusion zone around the offshore support vessel to manage vessel movements.</p>
Infrastructure	<ul style="list-style-type: none"> • 36 exploration wellheads comprising of mild steel with small amounts (~250 – 750 g) of elastomeric materials used within seal components. • Wellhead infrastructure for each well could include a corrosion cap, temporary guide base, permanent guide base and guide posts. • Each wellhead is ~7500 kg with a height above seabed of ~4.5 m or less.
Vessels	<ul style="list-style-type: none"> • Offshore support vessel such as an IMR or heavy well intervention semisubmersible vessel. • Potential for additional general support vessel.

Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth). Your feedback may also be used to support other regulatory processes associated with the planned activities (which may or may not be confidential).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

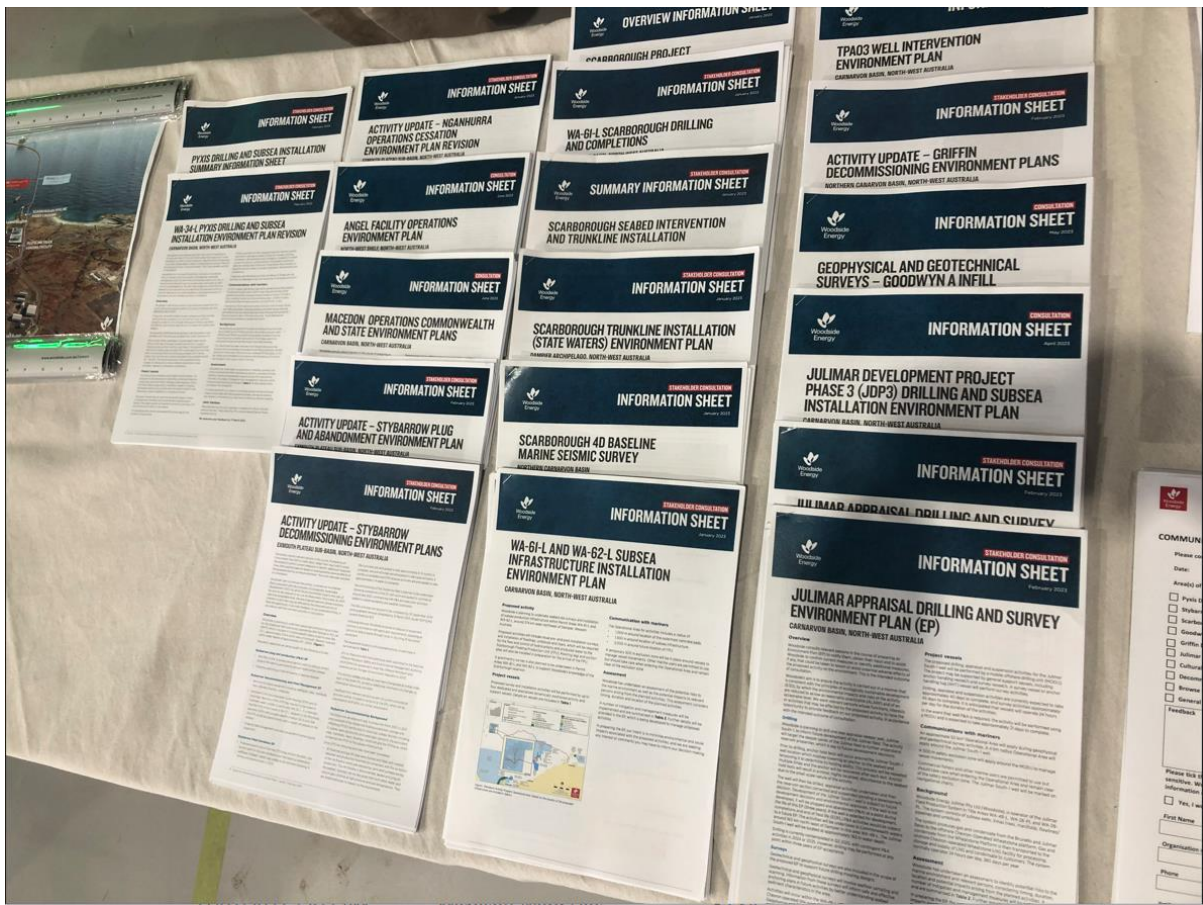
Kind regards,
Woodside Feedback

5. Community Information Sessions – June to August 2023

5.1 Exmouth Community Information Session – 17 June 2023

Location	Exmouth
Date	17 June 2023
Description of the consultation	<p>Woodside supported the PHI Helicopters Community Open Day at the Exmouth Aerodrome. Representatives from Woodside, including project and environment personnel equipped to answer technical questions, attended the event. Copies of the Consultation Information Sheets and Summary Consultation Information Sheets were available to attendees. Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide feedback.</p>

	A number of Environment Plan Consultation Information Sheets were available to attendees including the NWS and Julimar Wellheads EP Consultation Information Sheet.
Advertising and invitations	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Exmouth and surrounding areas (Record of Consultation, reference 5.1) advertising the Community Information Session.
Estimated number of individuals consulted	<ul style="list-style-type: none"> An estimated 300 community people attended the event (adults and children).
Summary of Feedback, Objection or Claim	
<p>General questions from ~5 community members included:</p> <ul style="list-style-type: none"> Whales - what Woodside is doing to protect whales, what the impact to whales might be. The Scarborough FPU and nature of this i.e. is it DP or moored to the seabed, was it like an FPSO. General interest questions on Scarborough project – location, activities (i.e. trunkline installation, construction work at Pluto gas plant (within existing footprint)), trunkline size and routing – and why the location was chosen, field life and start up timing. Turtle nesting and lighting controls. Funding for whale shark research. <p>Many of the EP consultation information sheets were taken by attendees. Two attendees said they were taking the information sheets so they could see pipeline routes (for fishing opportunities), specifically mentioning permit numbers they were after.</p>	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	






5.2 Roebourne Community Information Session – 22 June 2023

Location	Roebourne
Date	22 June 2023
Description of the consultation	<p>A Community Information Session was held in Roebourne.</p> <p>The consultation information session was hosted by members from Woodside’s Corporate Affairs and Environment teams and was open for all community members to receive information regarding Woodside’s Environment Plans and proposed and planned activities. A number of Environment Plan Consultation Information Sheets were available to attendees including the NWS and Julimar Wellheads EP Consultation Information Sheet.</p>
Advertising and invitations	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> • From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Roebourne and surrounding areas (Record of Consultation, reference 5.2) advertising the Community Information Session. • Woodside distributed posters advertising the community information session locally, including: <ul style="list-style-type: none"> ○ Front door and front window of Woodside Roebourne office. ○ Online distribution via the Roebourne Community Calendar. ○ Roebourne Police Station provided with printed copy.

	<ul style="list-style-type: none"> • Woodside staff also visited the following offices to advise of the community information session: <ul style="list-style-type: none"> ○ Ngarluma and Yindjibarndi Foundation Ltd (NYFL) ○ Ngarliyarndu Bindirri Aboriginal Corporation ○ Yinjaai-Barni Art ○ Foundation Foods
<p>Estimated number of individuals consulted</p>	<ul style="list-style-type: none"> • N/A
<p>Summary of Feedback, Objection or Claim</p>	
<p>Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.</p>	
<p>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</p>	
<p>There were no feedback, objections or claims.</p> <p>The community information sessions were part of Woodside's broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	



COMMUNITY CONSULTATION


COMMUNITY INFORMATION SESSIONS IN IERAMUGADU

You're invited to meet, greet and eat with our friendly team in Ieramugadu. We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Stop by to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed projects, including Scarborough and Browse.

Visit 39 Roe Street, Roebourne, between **12pm** and **3.30pm**, on:

Thursday 22 June 2023	Wednesday 19 July 2023
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5.2.1 Karratha Community Information Sessions – 28 and 29 June 2023

Location	Karratha – Shopping Centre, Woodside office
Date	28 and 29 June 2023
Description of the consultation	<p>Community Information Sessions were held in Karratha. Representatives from Woodside, including project and environment personnel equipped to answer technical questions, attended the event.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the JDP3 EP Consultation Information Sheet.</p>
Advertising and invitations	<p>Ahead of the event, Woodside advertised the sessions via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> • Ahead of the 28 June 2023 event, a story was posted on Woodside's Facebook page (Record of Consultation, reference 5.2.3), sharing details of its shopping centre stand where Consultation Information Sheets regarding planned and proposed activities were available, including the activities proposed under this EP. • Ahead of the 29 June 2023 event, the Community Information Session was advertised in the Pilbara News (Record of Consultation, reference 5.2.2), geotargeting a social media campaign in Karratha and surrounding areas and posting the event details on Woodside's Facebook page (Record of Consultation, reference 5.2.3).

	<ul style="list-style-type: none"> Woodside advertised the session by distributing posters advising of the event details in the local community and visiting offices to raise awareness, including the offices of local Traditional Custodian groups.
Estimated number of individuals consulted	<ul style="list-style-type: none"> Estimated number of people consulted: 10-20
Summary of Feedback, Objection or Claim	
<p>Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.</p> <ul style="list-style-type: none"> Employment opportunities provided by the resources sector General interest in Woodside EPs 	
Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside's broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	

5.2.2 Newspaper advertisement – Pilbara News – 28 June 2023

Pilbara NEWS
Wednesday, June 28, 2023

pilbaranews.com.au

NEWS 7



Rio reaches \$1b Range milestone

CHEYANNE ENCISO

Rio Tinto has spent \$1 billion with WA businesses as it progresses the development of its Western Range joint venture with China Baowu Steel Group.

Simon Trott, iron ore chief executive of Rio Tinto, said the \$1b spend marked a considerable milestone.

"Rio Tinto spends billions of dollars with local suppliers across Western Australia and the Pilbara every year, helping support thriving communities across the State by providing local jobs for local people," he said.

The 25 million tonnes-a-year Western Range project will help sustain production of Rio's flagship Pilbara blend product from its existing Paraburadoo mining hub as the Eastern Range project depletes. China Baowu said it was pleased to see the Western Range project progressing smoothly.

Premier Roger Cook said significant projects such as the Western Range reinforced WA as an attractive and secure destination for business and investment.

"I want to commend Rio Tinto and Baowu on this latest project milestone and acknowledge their efforts in investing in WA to ensure WA businesses and workers benefit most," he said.

Rio in March reported it had spent \$6.6b with more than 2400 WA and Indigenous businesses in 2022 as part of its local buying program.

The figure included \$618m with Pilbara-based businesses, \$504m with Indigenous companies across WA, and \$438m with businesses run by traditional owners.

Rio Tinto iron ore chief executive Simon Trott and China Baowu vice-president Hou Angut.



We are hiring

JOIN THE TEAM!

Here at Pilbara Ports Authority, we are committed to advancing an inclusive and productive workplace where people are valued and respected.

We are proud of the talent and diversity of our workforce. Our people are key to our current and future success. We are seeking individuals, who strive for excellence in all they do and seek out opportunities for growth. In return, we provide generous support for training and professional development.

If this sounds like a workplace you would thrive in, take a look at our current vacancies.

• Administration Officer – Maintenance – Port Hedland

Find out more about PPA careers and youth training online via careers.pilbaraports.com.au




FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES

WOULD YOU LIKE TO KNOW WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?

We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Drop in to our office to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed activities, including Scarborough.

Thursday, 29 June 2023
Between 9.00am - 2.00pm
The Quarter HQ Level 3
24 Sharpe Avenue
Karratha WA 6714

You can also access our consultation information and provide feedback by scanning the QR code.




5.2.3 Facebook post – 28 June 2023

On 28 June 2023, Woodside posted a story on its Woodside North West Facebook account, sharing details of its shopping centre stand where Consultation Information Sheets regarding is planned and proposed activities were available, including the activities proposed under this EP.

Platform/channel: Woodside North West (Facebook)

Date: 28 June 2023

Reach: 1,464 viewers

Impressions: 1,464 views

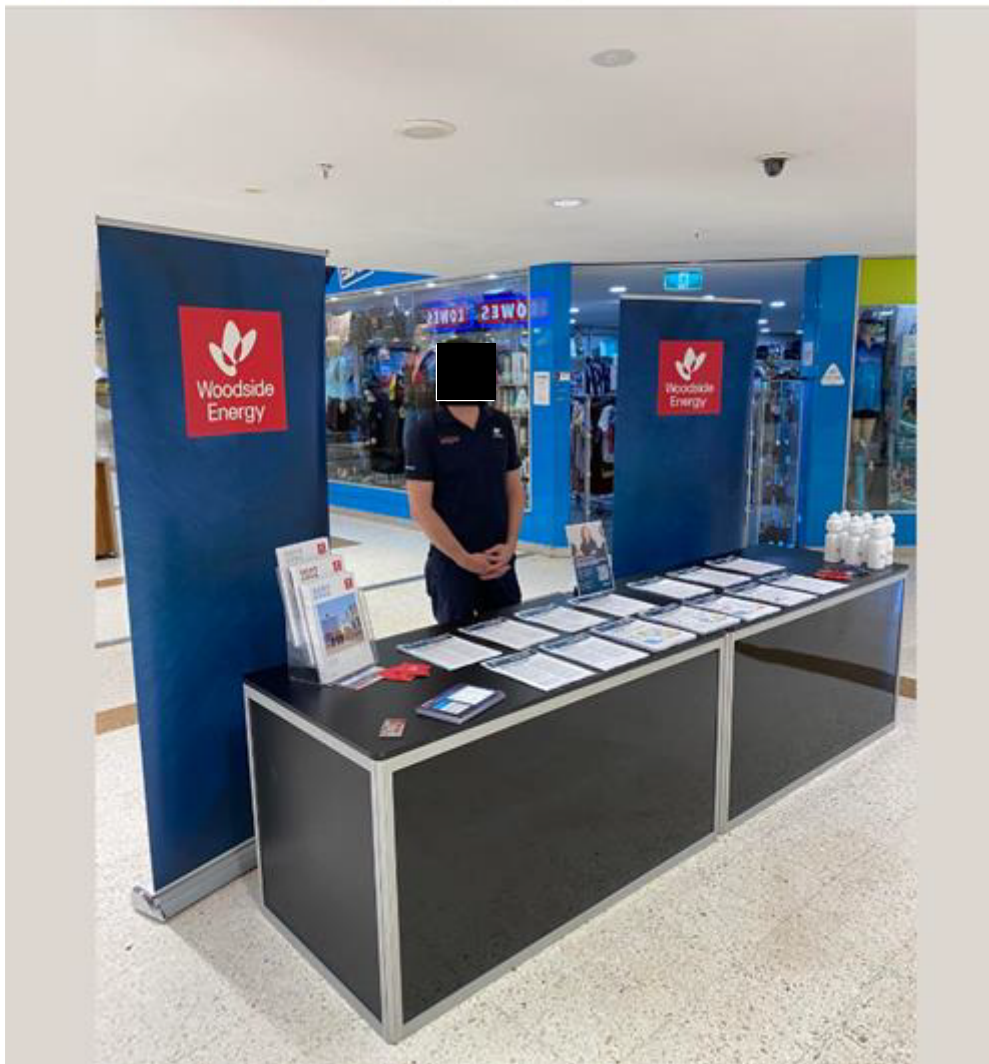


Woodside North West

Published by Woodside Comms · 28 June at 10:07 · 🌐

Stop by [Karratha City Shopping Centre](#) today and say our hello to our friendly team 🙌

We'll be here until 12pm to share information about our planned and proposed activities, our contribution in the community and employment pathways.



5.2.4 Geotargeted Social Media Campaign – 29 June 2023

On 29 June 2023, Woodside held a drop-in session at its Karratha town office. The drop-in session was hosted by one of Woodside’s Senior Environmental Advisers and was open for all community members to receive information regarding Woodside’s Environment Plans and proposed and planned activities.

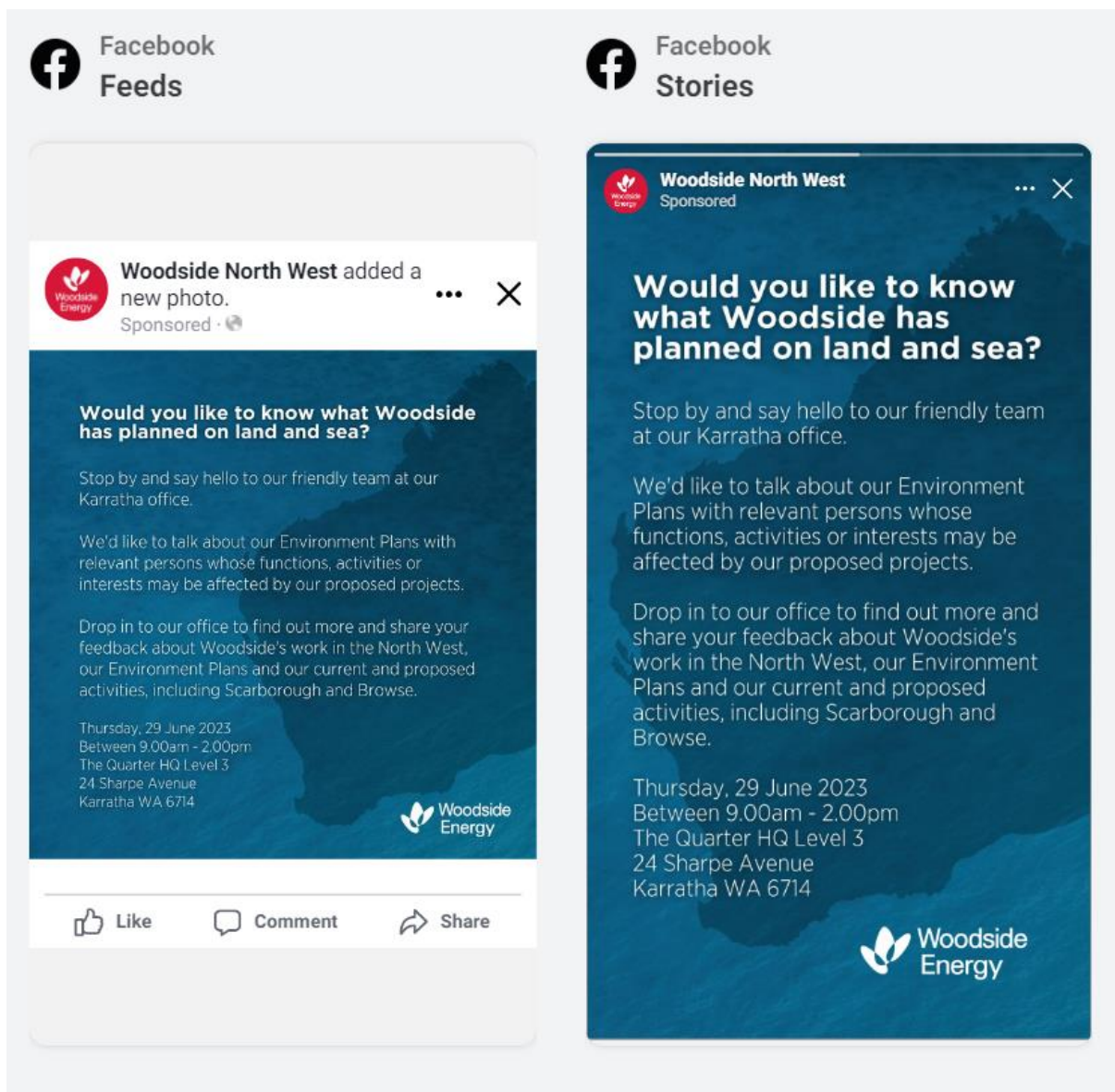
Dates: 26 June 2023 – 29 June 2023

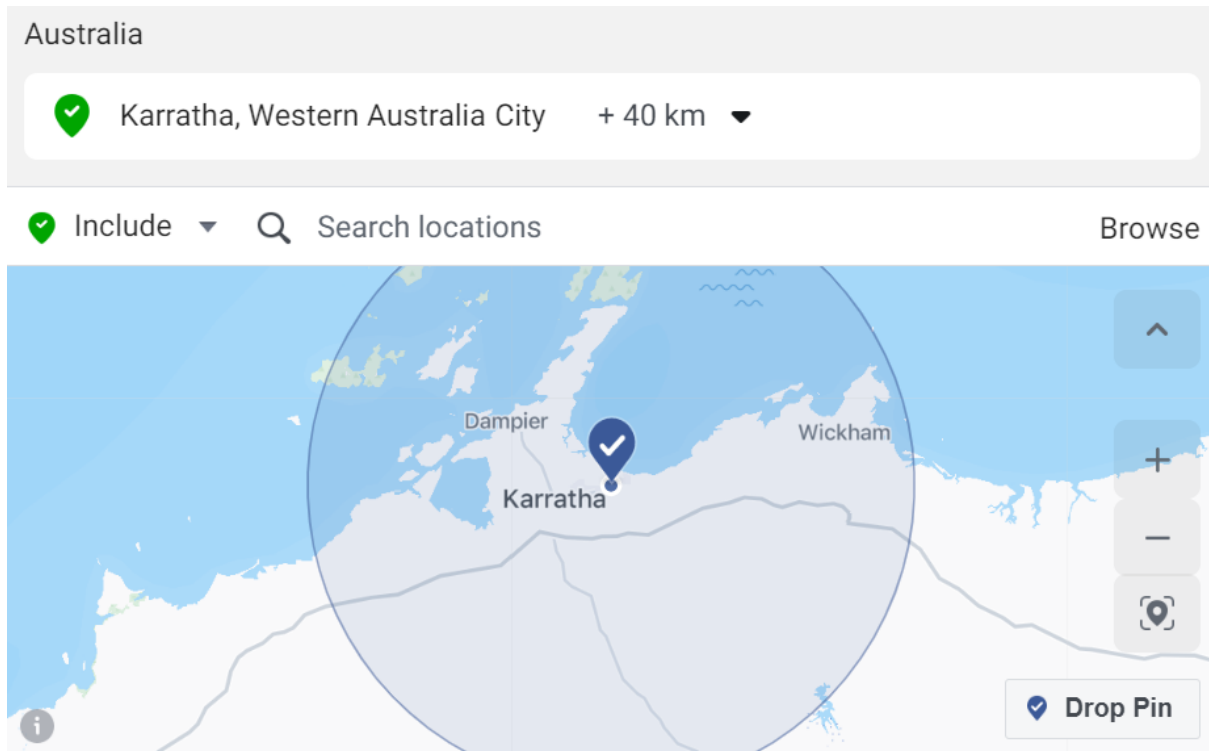
Geotargeting: 40km radius around Karratha

Reach: 19,240 viewers

Impressions: 22,931 views

Campaign name	Ad set name	Delivery	Reach	Impressions	Frequency	Attribution setting	Results
EP Drop in session - KTA	All	Recently completed Campaign	19,240	22,931	1.19	7-day click or 1-day view	19,240 Reach





On 28 June 2023, Woodside posted a story on its Woodside North West Facebook account, sharing details of its drop-in session.

Reach: 1,366 viewers

Impressions: 22,931 views

Geotargeting: 40 km radius around Karratha



Woodside North West 16 h



Did you miss us today at the Karratha City Shopping Centre?

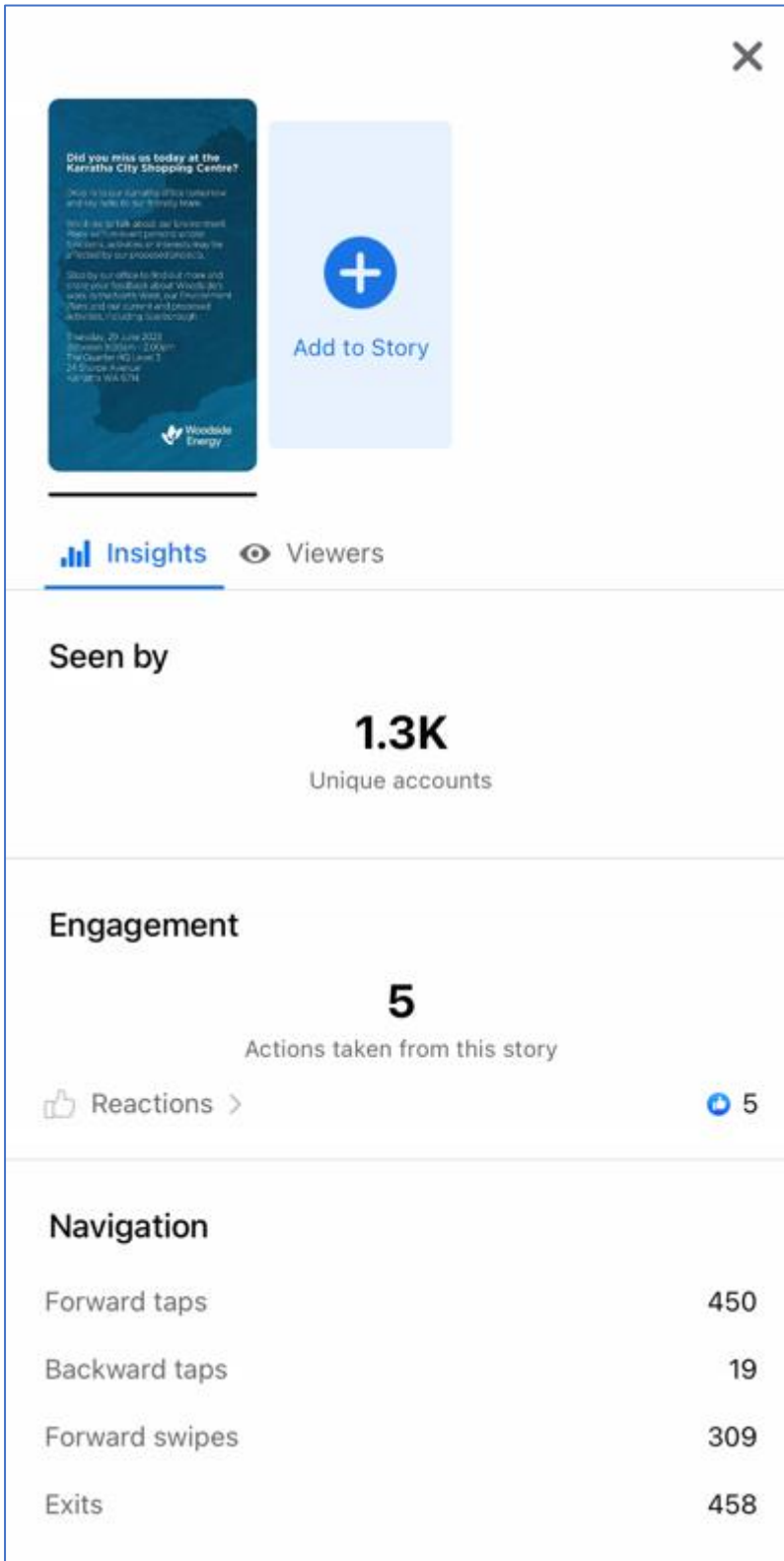
Drop in to our Karratha office tomorrow and say hello to our friendly team.

We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Stop by our office to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed activities, including Scarborough.

Thursday, 29 June 2023
Between 9.00am - 2.00pm
The Quarter HQ Level 3
24 Sharpe Avenue
Karratha WA 6714





Did you miss us today at the Karatha City Shopping Centre?

Drop in to our Karatha office tomorrow and help us do our 90-minute tour.

We'd like to talk about our Environment Plan, our current projects, what we can do, and what we can do to be a better neighbour.

Stop by our office to find out more and share your feedback about Woodside's work in the North West, our Environment Plan and our current and proposed activities, including Scarborough.

Tuesday, 20 June 2018
Between 9:30am - 12:00pm
The Centre HQ Level 3
24 Bourke Avenue
Karatha WA 6114

Insights **Viewers**

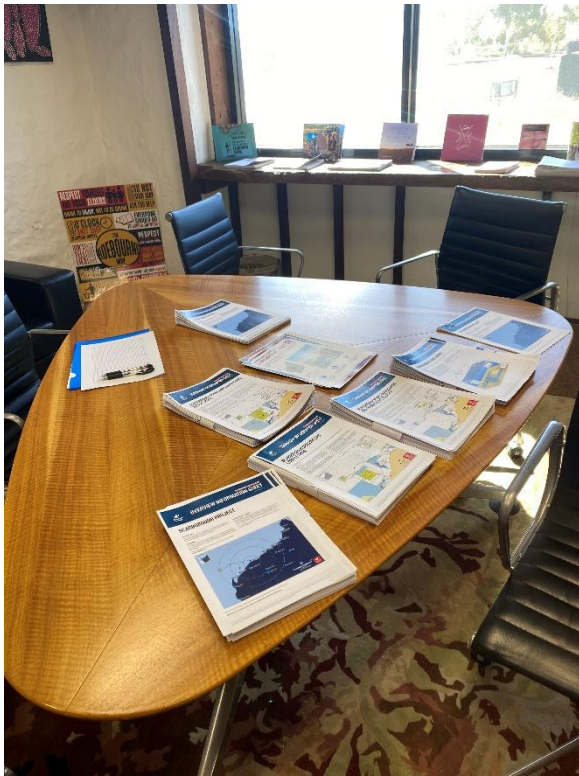
1,334 viewers

1,334 other people viewed this story. As it was shared to Public, people you're not friends with saw it.

5.2.5 Roebourne Community Information Session – 19 July 2023

Location	Roebourne
Date	19 July 2023
Description of the consultation	<p>A Community Information Session was held in Roebourne.</p> <p>The consultation information session was hosted by members from Woodside’s Corporate Affairs and Environment teams and was open for all community members to receive information regarding Woodside’s Environment Plans and proposed and planned activities.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the NWS and Julimar Wellheads EP Consultation Information Sheet.</p>
Advertising and invitations	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> • From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Roebourne and surrounding areas (Record of Consultation, reference 5.2) advertising the Community Information Session. • Woodside distributed posters advertising the community information session locally, including: <ul style="list-style-type: none"> ○ Front door and front window of Woodside Roebourne office, with the open sign and fact sheets on display inside (Record of Consultation, reference 5.2.5) ○ On the noticeboard at Roebourne Community Resource Centre (inside the Ieramugadu Store (NYFL’s Foundation Foods). ○ Roebourne CRC ○ Pilbara Community Legal Service ○ NBAC ○ WAPOL ○ BP • Woodside staff also visited the following offices to advise of the community information session and provide posters: <ul style="list-style-type: none"> ○ Ngarluma and Yindjibarndi Foundation Ltd (NYFL) ○ Yinjaai-Barni Art Group ○ Yandi for Change ○ NYFL ○ WY Program ○ Roebourne Library ○ Yindjibarndi Ranger office ○ Ashburton Aboriginal Corporation ○ A poster was also put up at Cossack.
Estimated number of individuals consulted	<ul style="list-style-type: none"> • N/A
Summary of Feedback, Objection or Claim	
Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>There were no feedback, objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	

Posters at Woodside's Roebourne Office:



5.2.6 Karratha FeNaCING Festival – 5 and 6 August 2023

Location	Karratha – FeNaCING Festival
Date	5 and 6 August 2023
Description of the consultation	<p>Woodside had a stand at the annual FeNaCING Festival held in Karratha. Members of Woodside’s Corporate Affairs and Operations teams actively engaged with the community to discuss proposed Environment Plan activities.</p> <p>The stand included Consultation Information Sheets for a number of Environment Plans including NWS and Julimar Wellheads EP.</p>
Advertising and invitations	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> • Advertisement in the Pilbara News on 2 August 2023 (Record of Consultation, reference 5.2.6). • A social media story appeared on the Woodside Nort West Facebook page on 2 August 2023 (Record of Consultation, reference 5.2.6). • Directly inviting local Traditional Custodian groups.
Estimated number of individuals consulted	Woodside estimates that over 2,000 people visited the Woodside stand based on the number of completed consultation forms and questionnaires.
Summary of Feedback, Objection or Claim	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> • Update of Woodside activities and employment and contracting opportunities • All community members were encouraged to provide their views on Woodside’s activities through the Woodside feedback form on the Woodside website, or to subscribe to Woodside updates. An iPad was available for stakeholders to do this on the spot. 	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	

Pilbara News Advertisement – 2 August 2023



PROVIDE YOUR FEEDBACK AT FeNaCING FESTIVAL

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at FeNaCING Festival and find out more about our Environment Plans and projects, including Scarborough and Growes.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.

Follow us @woodsidenorthwest
www.woodside.com



6 NEWS **Pilbara NEWS**
Wednesday, August 2, 2023

Melski's murals brought to life

DANIEL SPENCE

Tambrey Primary School has successfully brought renowned artist Mel Melski, popularly known as Melski, and her sister Tash to create three vibrant murals around the school premises.

With funding support from corporate entities like Woodside, FMG, and Pilbara Real Estate, as well as community contributions from Jerome, Martin, Santos, Yara, and GDF SUEZ Energy, the school raised more than \$20,000 to bring this art project to life.

Home to nearly 700 students, with a third of them having Indigenous backgrounds, school Deputy Principal Fred Whitbread and visual arts specialist Felicity Collins said the mission of the project was to celebrate diversity and create a sense of belonging by reflecting students' culture through artwork.

The school's mission was to create a profound sense of belonging by reflecting the students' culture through artwork.

What particularly attracted the school to Mel's artwork was its unique point-of-view style, which allowed students to actively participate in the mural creation process.

eager to engage the entire school community, the school declared a special "paint week," during which more than 400 students enthusiastically joined hands to contribute to the murals.

Throughout the week, students not only participated in the creation of the murals but also enjoyed immersive art sessions in the park, including painting, drawing, collaging, and chalk drawings – under the enchanting winter weather.

The entire experience served to nurture the students' creativity and appreciation for art, leaving a lasting impact on their artistic aspirations.

Ms Collins said she was thrilled to see the whole school coming together for a week of collaborative art.

"We were delighted to see students immersed in a week of collaborative art," she said.

"Students not only contributed to the creation of the mural but also with their involvement in the immersive art in the park session – which included painting, drawing, collaging and chalk drawings – while all outside soaking up the winter weather."



The artist was brought to the school to create murals.



Beyond supplying affordable, reliable, ever-cleaner energy – we believe we have an important role to play in helping local communities build a vibrant and prosperous future.

We do this by investing in programs which contribute to areas of health and wellbeing, education, environment and building thriving communities.

We're calling for applications for the Chevron Community Spirit Fund, offering donations of up to \$15,000 to not-for-profit organisations operating in the following Northwest locations.

- Carnarvon
- Coral Bay
- Dampier
- Denham
- Exmouth
- Karratha
- Onslow
- Port Hedland
- Roebourne
- Shark Bay

Applications are open now until 13 August 2023. To apply, head to australia.chevron.com




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Story on the Woodside North West Facebook Page – 2 August 2023



PROVIDE YOUR FEEDBACK AT FeNaCING FESTIVAL

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at FeNaCING Festival and find out more about our Environment Plans and projects, including Scarborough and Browse.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.



Environment Plan Banner



Woodside Energy

ENGAGE WITH WOODSIDE ON OUR PLANS ON LAND AND SEA

Environment Plans
Are you an individual, organisation or community group whose functions, interests or activities, may be affected by our activities?
We would like to hear your views.

Engage with us further
To identify as a relevant person for consultation on our Environment Plans, please speak with our team or contact us at:
Feedback@woodside.com, or phone 1800 442 977.

By find out more about Woodside's current and proposed activities and our Environment Plans that may affect you, scan the QR code.

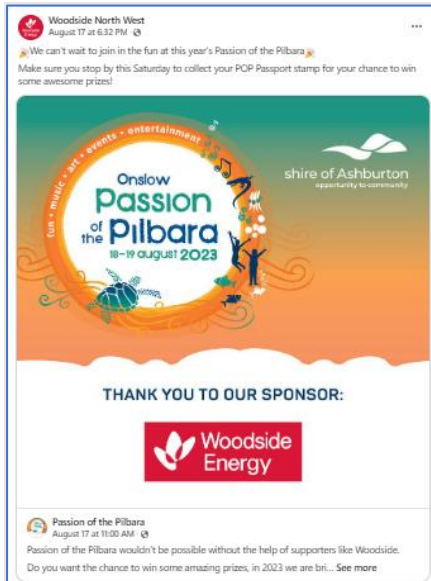
5.2.7 Passion of the Pilbara, Onslow – 18 August 2023

Location	Onslow – Passion of the Pilbara festival
Date	18 August 2023
Description of the consultation	Members of Woodside’s Corporate Affairs engaged with the community to discuss proposed Environment Plan activities. The stand included Consultation Information Sheets for a number of Environment Plans including the NWS and Julimar Wellheads EP.
Advertising and invitations	Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following: <ul style="list-style-type: none"> The consultation opportunity was promoted prior to the Festival in a story on the Woodside North West Facebook page on 17 August 2023. (Record of Consultation, reference 5.2.7)
Estimated number of individuals consulted	<ul style="list-style-type: none"> Woodside estimates approximately 100 people visited the Woodside stand.
Summary of Feedback, Objection or Claim	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> Update of Woodside activities and employment opportunities General Scarborough project update and operations. A Scarborough operations map and Floating Production Unit images were available (see below). There was general community interest and support for the project. Discussions included: <ul style="list-style-type: none"> Support for the project and dissatisfaction about protester activity against the project Number of jobs during construction Location of activities (noting activity was not off the coast of Onslow) General interest on the Browse project included: <ul style="list-style-type: none"> Awareness that Carbon Capture Storage concept is feasible and has been included in the development concept. One individual asked in relation to the Scarborough Project what Woodside was doing in relation to the protecting environment. Community members were encouraged to provide their views on Woodside’s activities through the Woodside feedback form on the Woodside website, or to subscribe to Woodside updates. 	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	

Passion of the Pilbara Facebook Post - 17 August 2023



Woodside North West Facebook Page – 17 August 2023




Woodside Facebook Post and Story - 17 August 2023

Feeds

Facebook Feeds

Woodside North West added a new photo. Sponsored



PROVIDE YOUR FEEDBACK AT PASSION OF THE PILBARA

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at Passion of the Pilbara in Onslow this Saturday and find out more about our Environment Plans and projects, including Scarborough and Browse.


We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.

Like Comment Share

Stories and Reels

Facebook Stories

Woodside North West Sponsored



PROVIDE YOUR FEEDBACK AT PASSION OF THE PILBARA

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at Passion of the Pilbara in Onslow this Saturday and find out more about our Environment Plans and projects, including Scarborough and Browse.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.

Woodside Energy

Audience definition

Your audience is defined.

Specific Broad

Estimated audience size: 21,400 - 25,200

Estimates may vary significantly over time based on your targeting selections and available data.

Estimated daily results

Reach

15K-21K

The accuracy of estimates is based on factors such as past campaign data, the budget you entered, market data, targeting criteria and ad placements. Numbers are provided to give you an idea of performance for your budget, but are only estimates and don't guarantee results.

Woodside Marquee



Woodside Information Sheets



5.3 Pilbara Community Information Sessions – September 2023

Location	Karratha, Port Hedland, and Roebourne
Date	18 – 20 September 2023
Description of the consultation	<p>Woodside hosted community consultation sessions in Karratha, Port Hedland and Roebourne to enable community members to understand Woodside's proposed activities and how it may affect them, ask questions, and provide their feedback.</p> <p>Woodside Project, Corporate Affairs, First Nations and Environment representatives were available to answer questions.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the NWS and Julimar Wellheads Consultation Information Sheet.</p>
Advertising and invitations	<p>Woodside advertised the sessions to enable individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> • Advertisement in the Pilbara News on 13 September 2023 (Record of Consultation, reference 5.3.1). • Geotargeted social media campaign advertising in Karratha (Reach 22,095), Port Hedland (reach 26,487), and Roebourne (reach 22,134) (+80 kms) from 6 to 16 September 2023 (Record of Consultation, reference 5.3.2). • An EP consultation banner with QR code (linked to the Consultation Activities page on the Woodside website), Scarborough Project banner, and Browse Project banners were displayed stand along with current EP factsheets.
Estimated number of	<p>18 September – Karratha. Estimated number of people consulted: 20</p> <p>19 September – Port Hedland. Estimated number of people consulted: 20</p>

individuals / organisations consulted	20 September– Roebourne. Estimated number of people consulted: 0
Summary of Feedback, Objection or Claim	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> • Update of Woodside activities and employment and contracting opportunities. <p>General Woodside activities on the North West Shelf including the location of operations. Woodside noted the need for additional gas and the role Browse could play at the Karratha Gas Plant.</p> <ul style="list-style-type: none"> • Some individuals had worked on a Woodside operations / project of knew family and friends that had. • General overview of what an EMBA was. <p>All community members were encouraged to provide their views on Woodside’s activities through the Woodside feedback form on the Woodside website, or to subscribe to Woodside updates. An iPad was available for stakeholders to do this on the spot.</p>	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 6.2 of the EP).</p>	

5.3.1 Pilbara News Advertisement – 13 September 2023

PilbaraNEWS
Wednesday, September 13, 2023

pilbaranews.com.au

NEWS 5



City of Karratha Mayor Peter Long. Picture: Tom Zaunmayr

Mayor runs again as candidates put forward pitches

DANIEL SPENCE

Nominations have closed for the 2023 Karratha mayoral and councillor elections, with the list of candidates running to be the city's next mayor being released.

Peter Long — who has been in the position since 2011 — will be running again and said, if re-elected, he would continue to provide Karratha with intelligent, safe and inclusive leadership.

"I am a full-time mayor, always able to receive you and your ideas," he said. "I love the Pilbara and our community."

Regional Development Australia Pilbara chief executive and former local government minister Tony Simpson is also running for mayor.

His vision is to join forces with State and Federal entities to progress childcare, health and housing solutions.

"I would work to draw major brand investments in retail and leisure to provide more options for residents. Identify land for a

foreshore entertainment hub and infuse Karratha with festivals and quality entertainment," he said.

Brenton Johannsen — who ran for the seat of Durack at the recent Federal election under One Nation — said he would donate the entire mayoral allowance to charity.

"I will be a committed full-time mayor, my goal is to visit all businesses and resident groups on a regular basis to touch base and discuss any new issues," he said.

Mr Johannsen said his aims would be neighbourhood safety, more opportunities for locals, ratepayer discounts for local facilities, moving airport smokers' areas, and eco-friendly weed management.

As a sitting councillor, radio announcer, parent and former local business owner mayoral candidate Pablo Miller said he had got to know the people of Karratha.

"As your mayor, I will continue to not only listen but be a strong advocate for our community," he

said. Mr Johannsen said he was interested in expanding opportunities for young people and families, growing local and cultural tourism, supporting businesses and bolstering mental health services.

The owner of the North West Brewing Co Daniel Scott has a vision as mayor to grow Karratha's economy.

His plan is to create an education and sporting precinct between the TAFE and St Luke's College, with accommodation for secondary and tertiary students.

His plans also include a new home for the Pilbara Universities Centre, and a sporting hub for rugby, soccer, hockey and gymnastics.

Those running for council include Daniel Scott, Kieran Dart, Wayne Mothershaw, Mr Johannsen, Sarah Roots, George Levisianos, Bradley Davy, Mr Simpson, James Corea, Joseph Almonite and Geoff Harris.

Elections will be held for the four vacancies on October 21st.

FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES

ARE YOU INTERESTED IN WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.

Speak to our friendly team members at one of our four sessions in September.

<p>Monday, 18 September 2023 Between 8.00am - 12.00pm Karratha Shopping Centre Sharpe Avenue Karratha</p>	<p>Monday, 18 September 2023 Between 3.00pm - 6.00pm Red Earth Arts Precinct 27 Welcome Road Karratha</p>
<p>Tuesday, 19 September 2023 Between 10.00am - 5.00pm South Hedland Square 9-31 Throssell Road South Hedland</p>	<p>Wednesday, 20 September 2023 Between 10.00am - 4.00pm Woodside Office 39 Roe Street Roebourne</p>

You can access our consultation information, provide feedback and subscribe for updates by scanning the QR code.

ONSLOW

Business Excellence Awards

Cocktail Celebration

Saturday 16th September, 2023
at Onslow Beach Resort

A fabulous stand up cocktail event with canapes and drinks from 5:30pm
Award presentations from 7pm
Live entertainment post award presentations

Tickets
Purchase your tickets online:
<https://OCCIBusinessAwards2023.eventbrite.com.au>

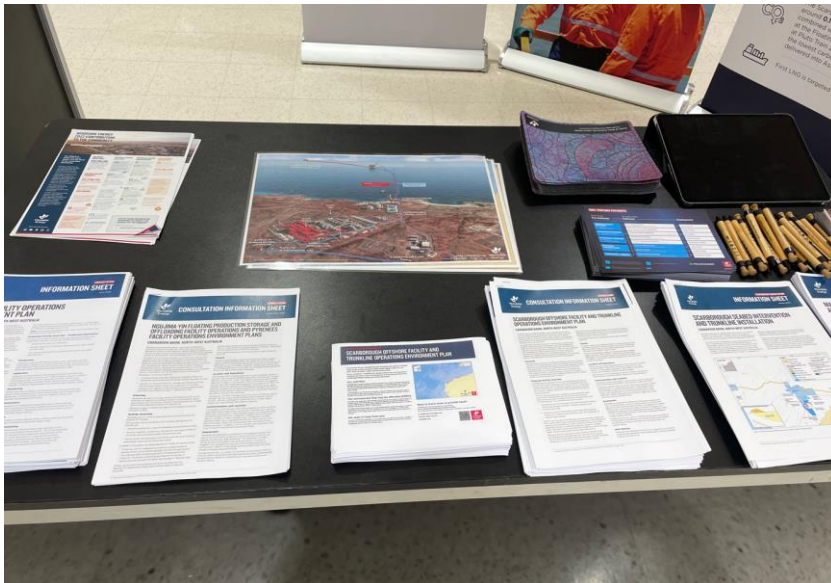
5.3.2 Social Media – 6 - 16 September 2023

<p>Are you interested in what Woodside has planned on land and sea?</p> <p>Stop by and say hello to our friendly team in Karratha.</p> <p>We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.</p> <p>Monday, 18 September 2023</p> <p>Between 8.00am - 12.00pm Karratha Shopping Centre Sharpe Avenue Karratha</p> <p>Between 3.00pm - 6.00pm Red Earth Arts Precinct 27 Welcome Road Karratha</p> 	<p>Are you interested in what Woodside has planned on land and sea?</p> <p>Stop by and say hello to our friendly team in Port Hedland.</p> <p>We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.</p> <p>Tuesday, 19 September 2023</p> <p>Between 10.00am - 5.00pm South Hedland Square 9-31 Throssell Road South Hedland</p> 	<p>Are you interested in what Woodside has planned on land and sea?</p> <p>Stop by and say hello to our friendly team in Roebourne.</p> <p>We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.</p> <p>Wednesday, 20 September 2023</p> <p>Between 10.00am - 4.00pm Woodside Office, Roebourne 39 Roe Street Roebourne</p> 
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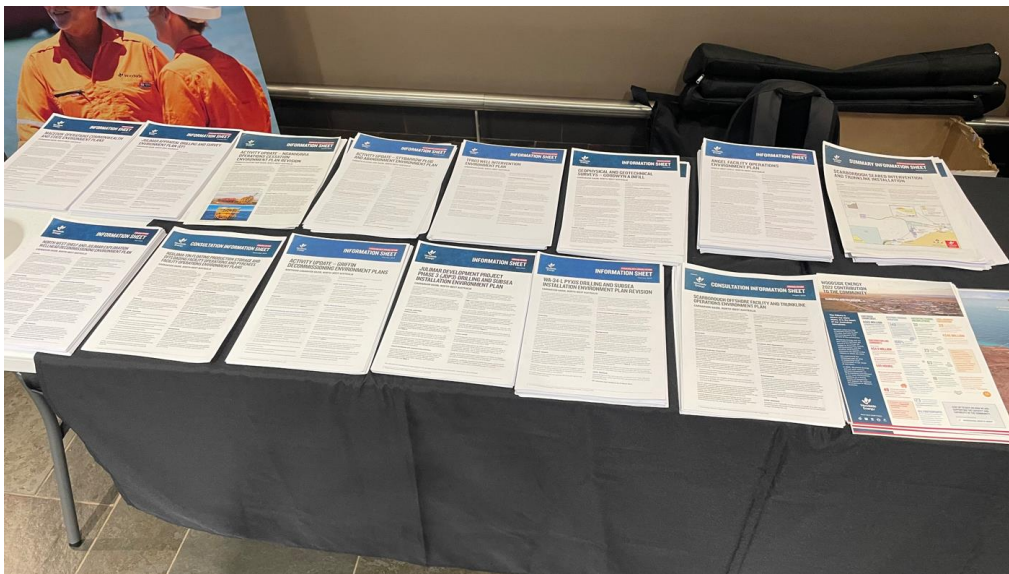
Social media reach:

Location	Reach
Karratha	22,095
Port Hedland	26, 487
Roebourne	22,134

5.3.3 Karratha Shopping Centre – 18 September 2023



5.3.4 South Hedland Square – 19 September 2023



5.3.5 Roebourne - Woodside Office – 20 September 2023



5.4 Community Information Sessions – October 2023

5.4.1 Exmouth Community Information Session – 23 October 2023

Location	Exmouth
Date	23 October 2023
Description of the consultation	Woodside hosted a community consultation session in Exmouth to enable community members to understand Woodside’s proposed activities and how it may affect them, ask questions, and provide their feedback. Woodside Project, Corporate Affairs, First Nations, Environment, and Biodiversity and Science representatives were available to answer questions. A number of Environment Plan Consultation Information Sheets were available to attendees including the JDP3 EP Consultation Information Sheet.
Advertising and invitations	Woodside advertised the sessions to enable individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following: <ul style="list-style-type: none"> • Advertisement in the Pilbara News on 11 October 2023 (Record of Consultation, reference 2.37.5). • Geotargeted social media campaign advertising in Exmouth and surrounding areas (+80 kms) from 2 to 9 October 2023 (Record of Consultation, reference 2.37.6). • Directly inviting local Traditional Custodian groups (Record of Consultation, Table 1). • An EP consultation banner with QR code (linked to the Consultation Activities page on the Woodside website) was displayed at Woodside’s stand along with current EP factsheets.
Estimated number of individuals / organisations consulted	Exmouth – 2 (Exmouth Chamber of Commerce and Industry) Four individuals attended the information session. One from Gascoyne Green Energy, two Shire Councillors and a representative from Exmouth’s Chamber of Commerce and Industry.
Summary of Feedback, Objection or Claim	
Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions, and provide their feedback. All stakeholders expressed they had seen the geotargeted ads on social media. General interest in Woodside activities and interest in the social benefits to the local Exmouth community. This included encouragement for Woodside to promote and share the positive outcomes of Woodside’s presence and an offer from the Chamber to share information amongst its members. General interest to understand what is involved in a marine seismic survey (MSS). Woodside presented its video on MSS. General interest to understand the interaction of whales and MSS, and what mitigation measures are put in place for our activities. Interest to understand how Woodside undertakes community consultation	
Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	
Whilst feedback was received, there were no objections or claims. The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see Section 5.2 of the EP).	

5.4.2 Pilbara News Advertisement – 11 October 2023

Pilbara NEWS
Wednesday, October 11, 2023

pilbaranews NEWS 5

NEWS 5

Animal flight policy criticised

CAIN ANDREWS

A prominent pet adoption agency has slammed Qantas' animal flight policy claiming it will lead to the unnecessary deaths of hundreds of animals.

Over the past year, animal adoption agency Saving Animals From Euthanasia's regional branches in Broome, Newman, Hedland and Karratha collectively rescued 1826 animals with 82.8 per cent or 956 of them requiring air transport to get to their new homes.

But with Qantas now enforcing a "no-fly" policy for animals when temperatures are forecast to reach more than 35C SAFE founder Sue Hedley said rescue animals that required air transport might have to be destroyed.

"It is crucial to recognise that this policy alteration could have dire consequences for these animals. If they are unable to reach their destination and find new homes, they may tragically face euthanasia as an alternative," she said.

Ms Hedley said SAFE had engaged with Qantas to try to find alternative solutions such as carriers or only allowing animals on early morning flights on days over 35C but was knocked back by the company.

"In over 20 years of operation, SAFE has never had a death during transportation from regional areas to Perth, no matter the temperature," she said.

"Unfortunately, we have been advised that the policy will remain



Sue Hedley & Salem. Pic: Helen Dale and that no exceptions will be made.

"We firmly believe that the risks associated with this policy extend far beyond those related to flying on a day when temperatures may reach 35C later in the day."

A Karratha woman, who only wishes to be identified as Simone, was told her two dogs would not be allowed to catch a Qantas flight on October 5 because of the policy.

According to Simone, at the last minute she was told her dogs could not catch the flight despite being told the night before her dog would be able to fly.

"It's ridiculous we're here with our dogs everything's packed, and we're going away as well.

"With the way things are in Karratha with the shortage of space available there's no one to look after our pets," she said.

"It's not just inconvenient, it's unethical as they're not even adhering to their own policy.



Simone's dogs faced being bumped off a Qantas flight because of the airline's heat policy.

"I get it's about animal safety but what is ridiculous is that the policy clearly states 35C and above and it (was) only 25C."

Qantas eventually made an exception for Simone and her dogs on the day, however, she claims she was told by those at the airport to not tell Ms Hedley about the incident.

Last year, temperatures in Karratha exceeded 35C on 108 days, with a consecutive period of 42 days over 35C between February 13 and March 26.

Responding to questions about the policy, a Qantas spokesperson said the policy was led by the International Pet and Animal Association and the International

Air Transport Association. "Qantas takes the safety and welfare of pets and animals who travel with us extremely seriously," the spokesperson said.

"This is why we don't transport pets when temperatures exceed 35C or fall below 5C, due to the stress and anxiety this could cause."



FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES

ARE YOU INTERESTED IN WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed activities.

Speak to our friendly team members at one of our three sessions in October.

Monday, 16 October 2023
Between 10.00am - 2.00pm
Gwoonwardu Mia
148 Robinson Street
Garravorn

Tuesday, 17 October 2023
Between 9.00am - 1.00pm
Denham Town Hall
Hughes Street
Denham

Monday, 23 October 2023
Between 10.00am - 5.00pm
Exmouth Chamber of Commerce and Industry
22 Maidstone Crescent
Exmouth



You can access our consultation information, provide feedback and subscribe for updates by scanning the QR code.



Northwest Multicultural Show 2023



SATURDAY
14 OCTOBER 2023
1:00PM-5:00PM
RED EARTH ARTS PRECINCT











5.4.3 Social media tile and story – 2 to 9 October 2023

Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Exmouth.

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed activities.

Monday, 23 October 2023

Between 10.00am - 5.00pm

Exmouth Chamber of Commerce and Industry

22 Maidstone Crescent

Exmouth



Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Exmouth.

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed activities.

Monday, 23 October 2023

Between 10.00am - 5.00pm

Exmouth Chamber of Commerce and Industry

22 Maidstone Crescent

Exmouth



5.5 Karratha Community Liaison Group meeting – 29 June 2023

ENVIRONMENT PLAN CONSULTATION

- Changes to Commonwealth Environment Plan (EP) consultation requirements.
- Woodside is now consulting based on the **environment that may be affected (EMBA)** by a proposed petroleum activity rather than within the Operational Area.
- The EMBA is the largest spatial extent where unplanned events, no matter how unlikely, could potentially have an environmental consequence.
- Any person or organisation who does not wish to continue to receive EP consultation materials where they have only been assessed as 'relevant' for unplanned events in the EMBA, under the EP consultation requirements, please advise us in writing and we will not send further information.
- However, you should be aware that this request will need to be recorded in our EP documents and will be publicly available.
- We will be holding a drop-in session after this meeting for anyone in community who would like to know more about any of our EPs.




29 | Karratha Community Liaison Group | June 2023

ENVIRONMENT PLAN CONSULTATION
Consultation with Karratha CLG

Previously consulted	Nganburra RTM Decommissioning	Macedon Commonwealth and State Operations	Lookahead for 2023 ^{1,2}
	Griffin Field Decommissioning	NWS / Julimar wellhead decommissioning	
	Stybarrow Field Decommissioning	Browse State wellhead decommissioning	
	Scarborough Activities	Nguljima-Yin Floating Production Storage and Offloading Facility Operations	
	Pluto Well (WA-34-L)	Pyrenees Facility Operations	
	Julimar Appraisal Well	Scarborough Operations	
	TPA03 Well Intervention	Scarborough State Trunklines	
	JDP3	NRC Operations	
	NWS Geotech/Geophys Survey	Vincent Phase V Drilling	
	Angel Operations	Macedon Infill Drilling	

¹ Subject to planning and scheduling.
² Woodside will assess the relevance of Karratha CLG during the development of each environment plan.

30 | Karratha Community Liaison Group | June 2023

5.6 Karratha Community Liaison Group Meeting – 29 September 2023


CONSULTATION

Previously consulted

- Griffin Field Decommissioning
- Stybarrow Field Decommissioning
- Scarborough Activities (Drilling and Completions and Seabed Intervention and Trunkline Installation)
- Pluto Well (WA-34-L)
- Julimar Appraisal Well
- TPA03 Well Intervention
- JDP3 Subsea Tieback
- Goodwyn A Geotech/Geophys Survey
- Angel Operations
- Macedon (State) Operations
- NWS and Julimar Wellheads


Currently consulting

- Ngujima-Yin Floating Production Storage and Offloading Facility Operations
- Pyrenees Facility Operations
- Scarborough Offshore Facility and Trunkline Operations EP



Scan the QR code or visit woodside.com/consultation-activities to access our consultation information.

26 | Karratha Community Liaison Group Meeting | Q3 2023



LOCAL ENGAGEMENT SESSIONS

- We consult relevant persons in the course of preparing an Environment Plan (EP) to notify them, obtain their input and to assist Woodside to confirm current measures or identify additional measures, if any, that may be taken to lessen or avoid potential adverse effects of the proposed activity on the environment.
- This month we held sessions for local community members to seek information about our EPs, to discuss functions, activities of interest that may be affected by our proposed projects and to provide an opportunity for feedback.
- Locations included the Karratha Shopping Centre, Red Earth Arts Precinct, Woodside's Roebourne Office
- Sessions were advertised to build community awareness and interest.



Advertisement - Pilbara News, 13 September 2023



Facebook advertisements

27 | Karratha Community Liaison Group Meeting | Q3 2023



APPENDIX G: DEPARTMENT OF PLANNING, LAND, HERITAGE, AND ABORIGINAL ENQUIRY SYSTEM RESULTS

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Controlled Ref No: G2000UF1401778035

Revision: 0

Woodside ID: 1401778035

Uncontrolled when printed. Refer to electronic version for most up to date information.

Search Criteria

8 Aboriginal Cultural Heritage (ACH) Register in Shapefile - NWS & Julimar Wellheads EMBA

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://alt.jotfor.ms/DPLH/aboriginal-heritage-enquiry> and we will make every effort to rectify it as soon as possible.

Copyright

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Location information data licensed from Western Australian Land Information Authority (WALIA) trading as Landgate. Copyright in the location information data remains with WALIA. WALIA does not warrant the accuracy or completeness of the location information data or its suitability for any particular purpose.

List of Aboriginal Cultural Heritage (ACH) Register

Terminology

ID: ACH on the Register is assigned a unique ID by the Department of Planning, Lands and Heritage using the format: ACH-00000001. For ACH on the former Register the ID numbers remain unchanged and use the new format. For example the ACH ID of the place Swan River was previously '3536' and is now 'ACH-00003536'.

Access and Restrictions:

- **Boundary Reliable (Yes/No):** Indicates whether to the best knowledge of the Department, the location and extent of the ACH boundary is considered reliable.
- **Boundary Restricted = No:** Represents the actual location of the ACH as understood by the Department.
- **Boundary Restricted = Yes:** To preserve confidentiality the exact location and extent of the place is not displayed on the map. However, the shaded region (generally with an area of at least 4km²) provides a general indication of where the ACH is located. If you are a landowner and wish to find out more about the exact location of the place, please contact the Department of Planning, Lands and Heritage.
- **Culturally Sensitive = No:** Availability of information that the Department of Planning, Lands and Heritage holds in relation to the ACH is not restricted in any way.
- **Culturally Sensitive = Yes:** Some of the information that the Department of Planning, Lands and Heritage holds in relation to the ACH is restricted if it is considered culturally sensitive information. This information will only be made available if the Department of Planning, Lands and Heritage receives written approval from the people who provided the information. To request access please contact via <https://alt.jotfor.ms/DPLH/aboriginal-heritage-enquiry>.
- **Culturally Sensitive Nature:**
 - **No Gender / Initiation Restrictions:** *Anyone* can view the information.
 - **Men only:** Only *males* can view restricted information.
 - **Women only:** Only *females* can view restricted information.

Status:

- **Register:** Aboriginal cultural heritage places that are assessed as meeting Section 5 of the *Aboriginal Heritage Act 1972*.
- **Lodged:** Information which has been received in relation to an Aboriginal cultural heritage place, but is yet to be assessed under Section 5 of the *Aboriginal Heritage Act 1972*.
- **Historic:** Aboriginal heritage places assessed as not meeting the criteria of Section 5 of the *Aboriginal Heritage Act 1972*. Includes places that no longer exist as a result of land use activities with existing approvals.

Place Type: The type of Aboriginal cultural heritage place. For example an artefact scatter place or engravings place.

Legacy ID: This is the former unique number that the former Department of Aboriginal Sites assigned to the place.

Coordinates

Map coordinates are based on the GDA 94 Datum.

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Aboriginal Cultural Heritage Inquiry System

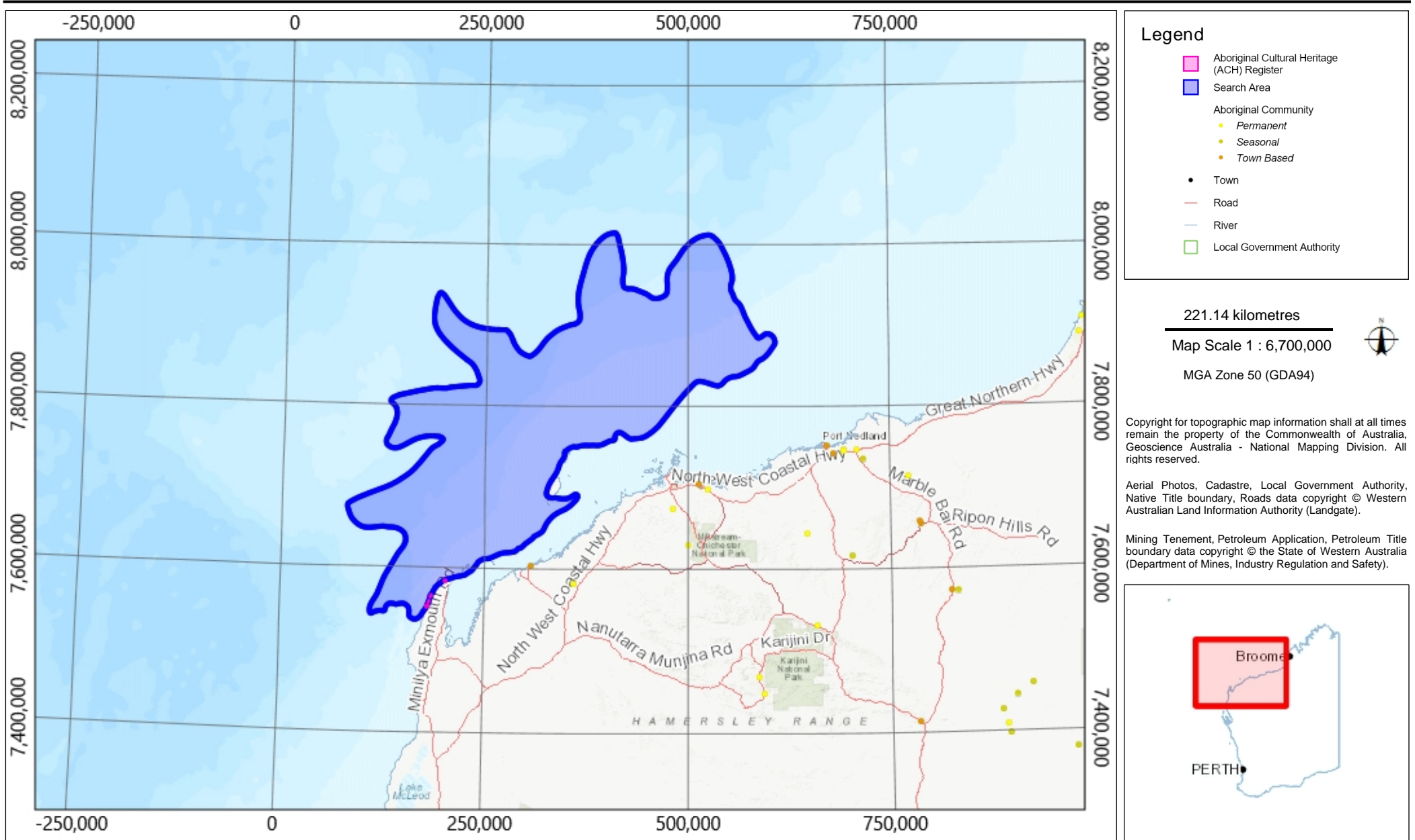
List of Aboriginal Cultural Heritage (ACH) Register

ID	Name	Boundary Restricted	Boundary Reliable	Culturally Sensitive	Culturally Sensitive Nature	Status	Place Type	Knowledge Holders	Legacy ID
628	CAMP THIRTEEN BURIAL	No	Yes	No	No Gender / Initiation Restrictions	Register	Burial	*Registered Knowledge Holder names available from DPLH	P07434
6761	LOW POINT MIDDEN	No	Yes	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter; Midden	*Registered Knowledge Holder names available from DPLH	P06172
6762	MILYERING MIDDEN	No	Yes	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter; Midden	*Registered Knowledge Holder names available from DPLH	P06173
6764	CAMP 17 SOUTH MIDDENS	No	No	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter; Midden	*Registered Knowledge Holder names available from DPLH	P06175
6765	CAMP 17 NORTH MIDDENS	No	No	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter; Midden	*Registered Knowledge Holder names available from DPLH	P06176
7126	MESA CAMP	No	No	No	No Gender / Initiation Restrictions	Register	Artefacts / Scatter; Midden	*Registered Knowledge Holder names available from DPLH	P05792
7305	MANGROVE BAY.	No	Yes	No	No Gender / Initiation Restrictions	Register	Burial; Artefacts / Scatter; Hunting Place; Midden	*Registered Knowledge Holder names available from DPLH	P05651
10381	VLAMING HEAD	Yes	No	Yes	No Gender / Initiation Restrictions	Register	Ritual / Ceremonial; Creation / Dreaming Narrative	*Registered Knowledge Holder names available from DPLH	P01799

Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Register

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Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Shapefile - NWS & Julimar Wellheads Operational Area

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the Aboriginal Heritage Act 1972.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

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Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Register

Coordinates

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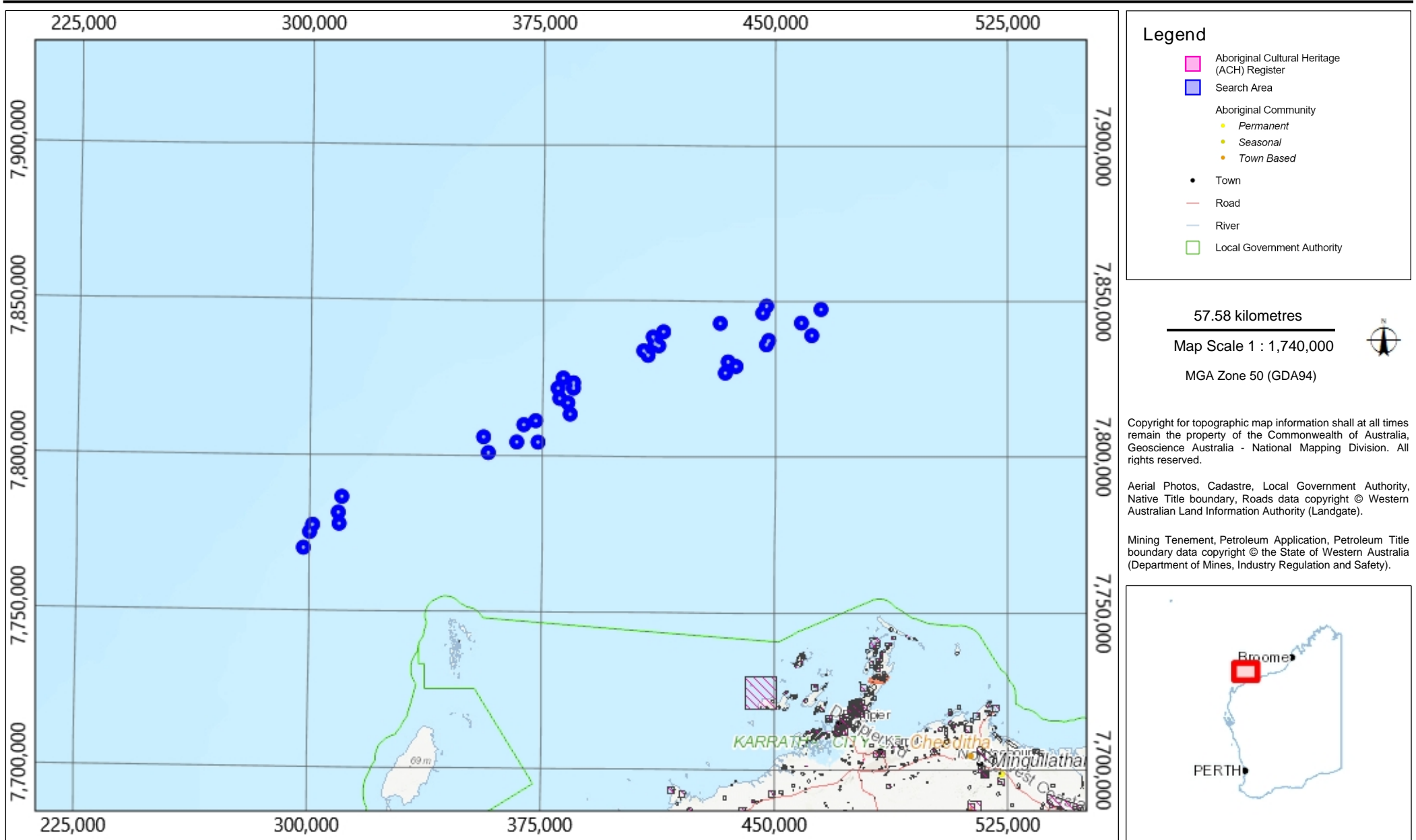
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APPENDIX H: FIRST STRIKE PLAN

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Revision: 0

Woodside ID: 1401778035

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CONTROLLED DOCUMENT
NWS and Julimar Exploration Wellhead
Decommissioning – Oil Pollution First Strike Plan



Controlled Ref No: JU0006GF1401780461

Revision: 0

Name	Signature	Date
Prepared by: Abby Findlay <i>(Recommender – Person creating/editing document content)</i>		
Approved by: Zoe Beverley <i>(Decider – Person validating document content)</i>		
Custodian: Nick Young <i>(Performer – Person managing document lifecycle)</i>		
Concurrence (Agreer - Agreement that must be obtained if an item is prepared external to, but impacts, a department or division. If concurrence is required, it must be noted within the body of the item).		
1.		
2.		
3.		

REVISION HISTORY

Revision	Description	Date	Prepared by	Approved by
0	Prepared for submission	27/11/2023	Abby Findlay	Zoe Beverley

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(Check one box only)

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(Shared with all Woodside personnel)
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(Shared with named individuals and groups)
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PREPARED

(Check one box only)

- By WEL**
- For WEL**
Under PO/Contract No:

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Controlled Ref No: JU0006GF1401780461

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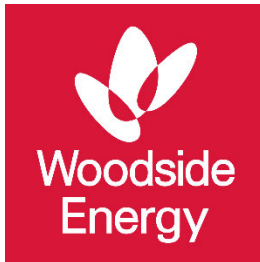
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Key TAG No's:	

DOCUMENT DISTRIBUTION			
Copy No.	Full Name / External Organisation Name (if applicable)	Hard Copy	Electronic Notification
00	Document Control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
01	Corporate Incident Management Team (CIMT) c/o Woodside Communications Centre (WCC)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
02	Australian Maritime Safety Authority (AMSA) C/- Marine Environment Pollution Branch PO Box 2181, Canberra 2601 E: [REDACTED]	<input type="checkbox"/>	<input checked="" type="checkbox"/>
03	WA Department of Transport Maritime Environmental Emergency Response (MEER) Maritime WA Department of Transport Level 4 5 Newman Court, Fremantle WA 6160 E: [REDACTED]	<input type="checkbox"/>	<input checked="" type="checkbox"/>
04	Australian Marine Oil Spill Centre (AMOSC) C/- General Manager, PO Box 1497, Geelong 3220 E: [REDACTED]	<input type="checkbox"/>	<input checked="" type="checkbox"/>
05	Oil Spill Response Limited C/- Operations Administration Loyang Offshore Supply Base 25C Loyang Crescent (Block 503 TOPS Avenue 3) Singapore 506818 E: [REDACTED]	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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NWS and Julimar Exploration Wellhead Decommissioning – Oil Pollution First Strike Plan

Corporate HSE

Hydrocarbon Spill Preparedness

November 2023

Revision 0

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CONTROL AGENCIES AND INCIDENT CONTROLLERS

Source	Location	Level	Control Agency	Incident Controller
Spill from facility including subsea infrastructure Note: pipe laying and accommodation vessels are considered a "facility" under Australian regulations	Commonwealth waters	1	Woodside	Person In Charge (PIC) with support from Onshore Team Leader (OTL)
		2/3	Woodside	Corporate Incident Management Team (CIMT) Incident Commander (IC)
	State waters	1	Woodside	CIMT IC
		2/3	Department of Transport (DoT)	DoT Incident Controller
	Within port limits	1	Woodside	CIMT IC
		2/3	DoT	DoT Incident Controller
Spill from vessel Note: SOPEP should be implemented in conjunction with this document	Commonwealth waters	1	Australian Marine Safety Authority (AMSA)	Vessel Master
		2/3	AMSA	AMSA (with response assistance from Woodside)
	State waters	1	DoT	DoT Incident Controller
		2/3	DoT	DoT Incident Controller
	Within port limits	1	Port Authority	Port Harbour Master
		2/3	Port Authority/ DoT	Port Harbour Master/ DoT Incident Controller

SPILLS IN STATE WATERS

As detailed in the table above, in the event of a hydrocarbon spill (hereafter 'spill') where Woodside Energy Ltd ('Woodside') is the responsible party and the spill may impact State waters and shorelines, Woodside (or the Vessel Master) will commence the initial response actions and notify the Western Australian Department of Transport (DoT).

Initially Woodside will be required to make available an appropriate number of suitably qualified persons to work in the DoT IMT (APPENDIX F – Woodside Liaison Officer Resources to DoT). DoT role as the Controlling Agency in State waters does not negate the requirement for Woodside to have appropriate plans and resources in place to adequately respond to a marine hydrocarbon spill incident in State Waters or to commence the initial response actions to a spill prior to DoT establishing incident control in line with DoT *Offshore Petroleum Industry Guidance Note – Marine Oil Pollution: Response and Consultation Arrangements* (July 2020). Cost recovery arrangements for offshore marine pollution incidents (MOP) are in accordance with Section 9 of the Guidance Note:

https://www.transport.wa.gov.au/mediaFiles/marine/MAC_P_Westplan_MOP_OffshorePetroleumIndGuidance.pdf

Woodside's Incident Management Structure for a hydrocarbon spill, including Woodside Liaison Officer's command structure within DoT can be seen at [APPENDIX E – Woodside Incident Management Structure](#).

The coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State waters/ shorelines is shown in [APPENDIX D – Coordination Structure for a Concurrent Hydrocarbon Spill in Both Commonwealth And State Waters/Shorelines](#).

RESPONSE PROCESS OVERVIEW

For guidance on credible scenarios and hydrocarbon characteristics, refer to APPENDIX A								
ALL INCIDENTS	Notify the Woodside Communication Centre (WCC) on: [REDACTED]							
	Incident Controller or delegate to make relevant notifications in Table 1-1 of this Oil Pollution First Strike Plan.							
LEVEL 1	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0070C0; color: white;">FACILITY INCIDENT</th> <th style="background-color: #C00000; color: white;">VESSEL INCIDENT</th> </tr> </thead> <tbody> <tr> <td style="background-color: #D9E1F2;">Coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.</td> <td style="background-color: #F4CCCC;">Notify AMSA and coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.</td> </tr> </tbody> </table>	FACILITY INCIDENT	VESSEL INCIDENT	Coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.	Notify AMSA and coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.			
	FACILITY INCIDENT	VESSEL INCIDENT						
	Coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.	Notify AMSA and coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.						
If the spill escalates such that the site cannot manage the incident, inform the WCC on: [REDACTED] and escalate to a level 2/3 incident.								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0070C0; color: white;">FACILITY INCIDENT</th> <th style="background-color: #C00000; color: white;">VESSEL INCIDENT</th> </tr> </thead> <tbody> <tr> <td style="background-color: #D9E1F2;">Handover control to CIMT and notify DoT.</td> <td style="background-color: #F4CCCC;">Handover control to AMSA and stand up CIMT to assist.</td> </tr> <tr> <td style="background-color: #D9E1F2;">Commence quick revalidation of the recommended strategies on Table 2-1 taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.</td> <td style="background-color: #F4CCCC;">If requested by AMSA/Port Authority: Commence quick revalidation of the recommended strategies on Table 2-1 taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.</td> </tr> <tr> <td style="background-color: #D9E1F2;">Create an Incident Action Plan (IAP) for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational Net Environmental Benefit Analysis (NEBA) see the OSPRMA Appendix A.</td> <td style="background-color: #F4CCCC;">If requested by AMSA: Create an IAP for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational NEBA see the OSPRMA Appendix A.</td> </tr> </tbody> </table>	FACILITY INCIDENT	VESSEL INCIDENT	Handover control to CIMT and notify DoT.	Handover control to AMSA and stand up CIMT to assist.	Commence quick revalidation of the recommended strategies on Table 2-1 taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.	If requested by AMSA/Port Authority: Commence quick revalidation of the recommended strategies on Table 2-1 taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.	Create an Incident Action Plan (IAP) for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational Net Environmental Benefit Analysis (NEBA) see the OSPRMA Appendix A.	If requested by AMSA: Create an IAP for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational NEBA see the OSPRMA Appendix A.
FACILITY INCIDENT	VESSEL INCIDENT							
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Create an Incident Action Plan (IAP) for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational Net Environmental Benefit Analysis (NEBA) see the OSPRMA Appendix A.	If requested by AMSA: Create an IAP for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational NEBA see the OSPRMA Appendix A.							
LEVEL 2/3								

1. NOTIFICATIONS

The Incident Controller or delegate must ensure the below notifications (Table 1-1) are completed within the designated timeframes.

For spills from a vessel, relevant notifications must be undertaken by a Woodside representative.

Table 1-1: Notifications

In the event of an incident between campaign vessels, also activate relevant vessel Emergency Response Plans and/or Bridging Documents.

In the event of an incident impacting live well or subsea infrastructure, activate any other relevant First Strike Plan(s):

[North Rankin Complex](#)

[Angel Platform](#)

[Goodwyn Alpha Platform](#)

[Okha FPSO](#)

[Pluto Offshore Facility](#)

Timing	By	To	Name	Contact	Instruction	Form	Complete? (✓)
NOTIFICATIONS FOR ALL LEVELS OF SPILL							
Immediately	Offshore Installation Manager (OIM) or Vessel Master	Woodside Communication Centre (WCC)	CIMT IC	[REDACTED]	Verbally notify WCC of event and estimated volume and hydrocarbon type.	Verbal	
Within 2 hours	Woodside Site Rep (WSR), CIMT IC or Delegate	National Offshore Petroleum Safety	Incident notification office	[REDACTED]	Verbally notify NOPSEMA for spills >80L. Record notification using Initial Verbal Notification Form or equivalent and send to NOPSEMA as soon as practicable (cc to NOPTA and DMIRS).	■	
Within 3 days	WSR, CIMT IC or Delegate	Environmental Management Authority (NOPSEMA ¹)			Provide a written NOPSEMA Incident Report Form as soon as practicable (no later than 3 days after notification) (cc to NOPTA and DMIRS) NOPSEMA [REDACTED] NOPTA [REDACTED] DMIRS [REDACTED]	■	
As soon as practicable	CIMT IC or Delegate	Woodside	Environment Unit Leader	As per roster	Verbally notify Environment Unit Leader of event and seek advice on relevant performance standards from EP	Verbal	
Within 2 hours of becoming aware of a marine pollution incident (MOP) that occurs in or may impact state waters	CIMT IC or Delegate	WA Department of Transport	DoT Maritime Environmental Emergency Response Unit (MEER) Duty Officer	[REDACTED]	Verbally notify DoT MEER Duty Officer that a spill has occurred and, if required, request use of equipment stored in Karratha. Follow up with a written Marine Pollution Report (POLREP) as soon as practicable following verbal notification. Additionally, DoT to be notified if spill is likely to extend into WA State waters. Request DoT to provide Liaison to Woodside IMT.	■	
As soon as practicable	CIMT IC or Delegate	Department of Climate Change, Energy, the Environment and Water (DCCEEW) Director of National Parks	Marine Park Compliance Duty Officer	[REDACTED]	The Marine Park Compliance Duty Officer is notified in the event of oil pollution within a marine park, or where an oil spill response action must be taken within a marine park, so far as reasonably practicable, prior to response action being taken. This notification should include: <ul style="list-style-type: none"> titleholder details time and location of the incident proposed response arrangements and locations as per the OPEP contact details for the response coordinator confirmation of access to relevant monitoring and evaluation reports when available. 	Verbal	

¹ Notification to NOPSEMA must be from a Woodside Representative.

As soon as practicable if there is potential for oiled wildlife or the spill is expected to contact land or waters managed by WA Department of Biodiversity, Conservation and Attractions	CIMT IC or Delegate	WA Department of Biodiversity, Conservation and Attractions (DBCA)	Duty Officer	██████████	Phone call notification	Verbal	
As soon as practicable	Public Information	Relevant persons/ organisations	To be determined	To be determined	Should it be identified that additional persons such as, but not limited to, commercial fishers or tourism operators may be affected, Woodside would, at the relevant time, engage with these parties as appropriate and in alignment with the Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) for NWS and Julimar Exploration Wellhead Decommissioning. Relevant persons/ organisations will be re-assessed throughout the response period.	Verbal initially	
As soon as practicable	Public Information	Relevant cultural authorities	To be determined	To be determined	Should it be identified that relevant cultural authorities may be affected, Woodside would, at the relevant time, engage with these parties as appropriate and in alignment with the Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) for NWS and Julimar Exploration Wellhead Decommissioning. Relevant cultural authorities will be re-assessed throughout the response period.		
ADDITIONAL NOTIFICATIONS TO BE MADE ONLY IF SPILL IS FROM A VESSEL							
Without delay as per protection of the Sea Act, part II, section 11(1)	Vessel Master	Australian Maritime Safety Authority (AMSA)	Response Coordination Centre (RCC)	██████████ ██████████	Verbally notify AMSA RCC of the hydrocarbon spill. Follow up with a written Marine Pollution Report (POLREP) as soon as practicable following verbal notification.	██████████	
ADDITIONAL LEVEL 2/3 NOTIFICATIONS							
As soon as practicable	CIMT IC or Delegate	AMOSOC	AMOSOC Duty Manager	██████████	Notify AMOSOC that a spill has occurred and follow-up with an email from the CIMT IC/ CIMT Deputy IC/ CMT Leader to formally activate AMOSOC. Determine what resources are required consistent with the AMOS Plan and detail in a Service Contract that will be sent to Woodside from AMOSOC upon activation.	██████████	
As soon as practicable	CIMT IC or Delegate	Oil Spill Response Limited (OSRL)	OSRL Duty Manager	██████████	Contact OSRL duty manager and request assistance from technical advisor in Perth. Send the completed notification form to OSRL as soon as practicable.	██████████	
					For mobilisation of resources, send the Mobilisation Form to OSRL as soon as practicable. The mobilisation form must be signed by a nominated callout authority from Woodside. OSRL can advise the names on the call out authority list, if required.	██████████	
As soon as practicable if extra personnel are required for incident support	CIMT IC or Delegate	Marine Spill Response Corporation (MSRC)	MSRC Response Manager	██████████ ██████████	Activate the contract with MSRC (in full) for the provision of up to 30 personnel depending on what skills are required. Please note that provision of these personnel from MSRC are on a best endeavours basis and are not guaranteed.	Verbal	

2. RESPONSE TECHNIQUES

Table 2-1: Response techniques

Technique	Hydrocarbon	Level	Pre- Identified Tactics	Responsible	ALARP Commitment Summary	Link to Operational Plans for notification numbers and actions
	Marine Diesel Oil (MDO)					
Monitor and evaluate – tracking buoy (OM02)	Yes	ALL	If a vessel is on location, consider the need to deploy the oil spill tracking buoy. If no vessel is on location, consider the need to mobilise oil spill tracking buoys from the King Bay Supply Base (KBSB) Stockpile. If a surface sheen is visible from the facility, deploy the satellite tracking buoy within two hours.	Operations	DAY 1: Tracking buoy deployed within 2 hours.	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan. Deploy tracking buoy in accordance with Link .
Monitor and evaluate – predictive modelling (OM01)	Yes	ALL	Undertake initial modelling using the Rapid Assessment Oil Spill Tool and weathering fate analysis using Automated Data Inquiry for Oil Spills (ADIOS) or refer to the hydrocarbon information in APPENDIX A – Credible spill scenarios and hydrocarbon information .	Situation or Environment	DAY 1: Initial modelling within 6 hours using the Rapid Assessment Tool.	Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
	Yes	ALL	Send Oil Spill Trajectory Modelling (OSTM) form (Appendix B, Form 7) to RPS Response (██████████).	Situation	DAY 1: Detailed modelling within 4 hours of RPS Response receiving information from Woodside.	
Monitor and evaluate – aerial surveillance (OM02)	Yes	ALL	Instruct Aviation Unit Leader to commence aerial observations in daylight hours. Aerial surveillance observer to complete log in Appendix B Form 8 .	Logistics – Aviation	DAY 1: 2 trained aerial observers. 1 aircraft available. Report made available to the IMT within 2 hours of landing after each sortie.	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
Monitor and evaluate – satellite tracking (OM02)	Yes	ALL	The Situation Unit Leader should be instructed to stand up Kongsberg Satellite Services (KSAT) to provide satellite imagery of the spill (██████████).	Situation	DAY 1: Service provider will confirm availability of an initial acquisition within 2 hours. Data received to be uploaded into Woodside Common Operating Picture.	
Monitor and evaluate – monitoring hydrocarbons in water (OM03)	Yes	ALL	Consider the need to mobilise resources to undertake water quality monitoring (OM03).	Planning or Environment	DAY 3: Water quality assessment access and capability Daily fluorometry reports will be provided to IMT.	Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
Monitor and evaluate – pre-emptive assessment of receptors at risk (OM04)	Yes	ALL	Consider the need to mobilise resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning or Environment	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 2 specialists from resource pool in establishing the status of sensitive receptors	Pre-emptive Assessment of Sensitive Receptors (OM04 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
Monitor and evaluate – shoreline assessment (OM05)	Yes	ALL	Consider the need to mobilise resources to undertake shoreline assessment surveys (OM05).	Planning or Environment	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 1 specialist(s) in Shoreline Contamination Assessment Techniques (SCAT) from resource pool for each of the RPAs with predicted impacts	Shoreline Assessment (OM05 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
Surface dispersant	No	N/A	This response strategy is not recommended for a spill of MDO.			

Technique	Hydrocarbon	Level	Pre- Identified Tactics	Responsible	ALARP Commitment Summary	Link to Operational Plans for notification numbers and actions
	Marine Diesel Oil (MDO)					
Containment and recovery	No	N/A	This response strategy is not recommended for a spill of MDO.			
Mechanical dispersion	No	N/A	This response strategy is not recommended for a spill of MDO.			
In-situ burning	No	N/A	This response strategy is not recommended for a spill of MDO.			
Shoreline protection and deflection	No	N/A	Modelling does not predict any shoreline contact at response thresholds.			
Shoreline clean-up	No	N/A	Modelling does not predict any shoreline contact at response thresholds.			
Oiled wildlife response	Yes	ALL	If oiled wildlife is a potential impact, request AMOSC to mobilise containerised oiled wildlife first strike kits and relevant personnel. Refer to relevant Tactical Response Plan for potential wildlife at risk. Mobilise AMOSC Oiled Wildlife Containers. Consider whether additional equipment is required from local suppliers.	Logistics and Planning		Oiled Wildlife Response Operational Plan
Scientific monitoring (type II)	Yes	ALL	Notify Woodside science team of spill event.	Environment		Oil Spill Scientific Monitoring Programme – Operational Plan

3. RESPONSE PROTECTION AREAS

Action: Provide relevant Control Agency with applicable Tactical Response Plans for any Response Protection Areas (RPAs) identified during operational monitoring.

Based on hydrocarbon spill modelling results, the sensitive receptors outlined in **Table 3-1** are identified as priority protection areas, as they have the potential to be contacted by hydrocarbon at or above impact threshold levels within 48 hours of a spill.

Table 3-1: Receptors for Priority Protection with Potential Impact within 48 Hours

Receptor	Distance and Direction from Operational Area (km)	Threshold triggered and recommended strategy	Tactical Response Plans
Montebello AMP (open ocean location) – 17 hours	7.86 km east (offshore edge of receptor)	Threshold: floating hydrocarbon at $>50 \text{ g/m}^2$ Strategies: Monitor the slick to assess if any shoreline RPAs become at risk of impact.	N/A – offshore locations
Open ocean	0 km	<i>N.B. No shoreline impact is predicted at response thresholds. Additionally, although this RPA has some surface concentrations at the $>50 \text{ g/m}^2$ threshold, dispersant and containment and recovery are not feasible for a spill of MDO.</i>	

Hydrocarbon spill modelling results indicate none of the sensitive receptors have the potential to be contacted by shoreline hydrocarbons beyond 48 hours of a spill at response thresholds.

Tactical Response plans can be accessed via this [link](#) if required. These include the details of potential forward operating bases and staging areas.

Oil Spill Trajectory Modelling specific to the spill event will be required to determine the regional sensitive receptors to be contacted beyond 48 hours of a spill.

Figure 3-1 illustrates the location of regional sensitive receptors in relation to the NWS and Julimar Exploration Wellhead Decommissioning Operational Areas.

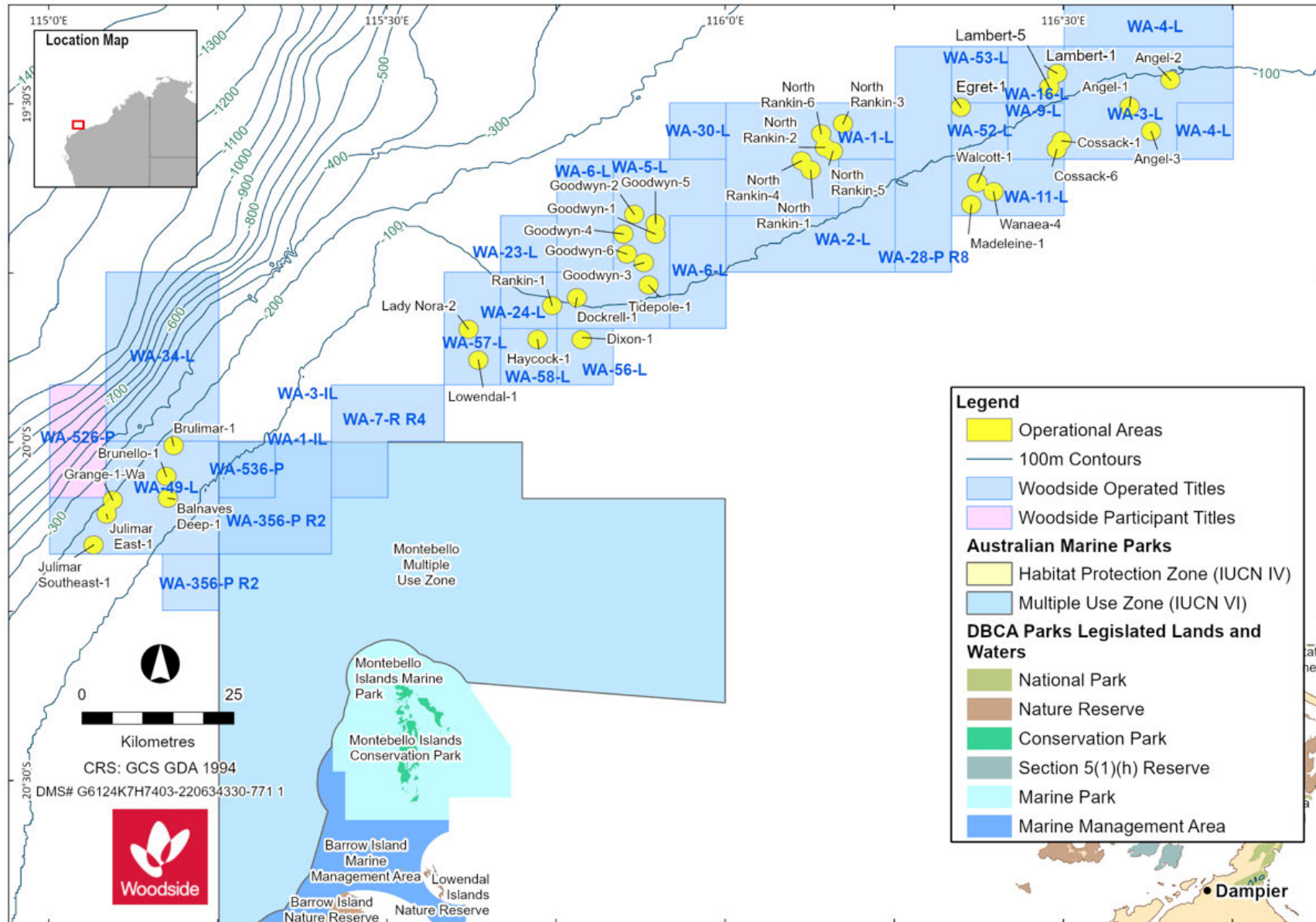


Figure 3-1: Regional sensitive receptors

Consideration should be given to other stakeholders (including mariners) in the vicinity of the spill location. **Table 3-2** and **Figure 3-2** indicate the assets within the vicinity of the NWS and Julimar Exploration Wellhead Decommissioning Operational Areas.

Table 3-2: Assets in the vicinity of the NWS and Julimar Exploration Wellhead Decommissioning Operational Areas

Asset	Distance and Direction from NWS and Julimar Exploration Wellhead Decommissioning Operational Areas	Operator
North Rankin Complex	1 km northeast of North Rankin-1	Woodside
Angel Platform	1 km northeast of Angel-1	Woodside
Goodwyn A Platform	4 km east of Goodwyn-5	Woodside
Okha FPSO	6.5 km southwest of Cossack-1	Woodside
Pluto	19 km east of Brulimar-1	Woodside
Wheatstone	22 km east of Brulimar-1	Chevron
John Brooks	33 km south of Julimar South East-1	Santos
Reindeer	42 km south of Madeleine-1	Santos

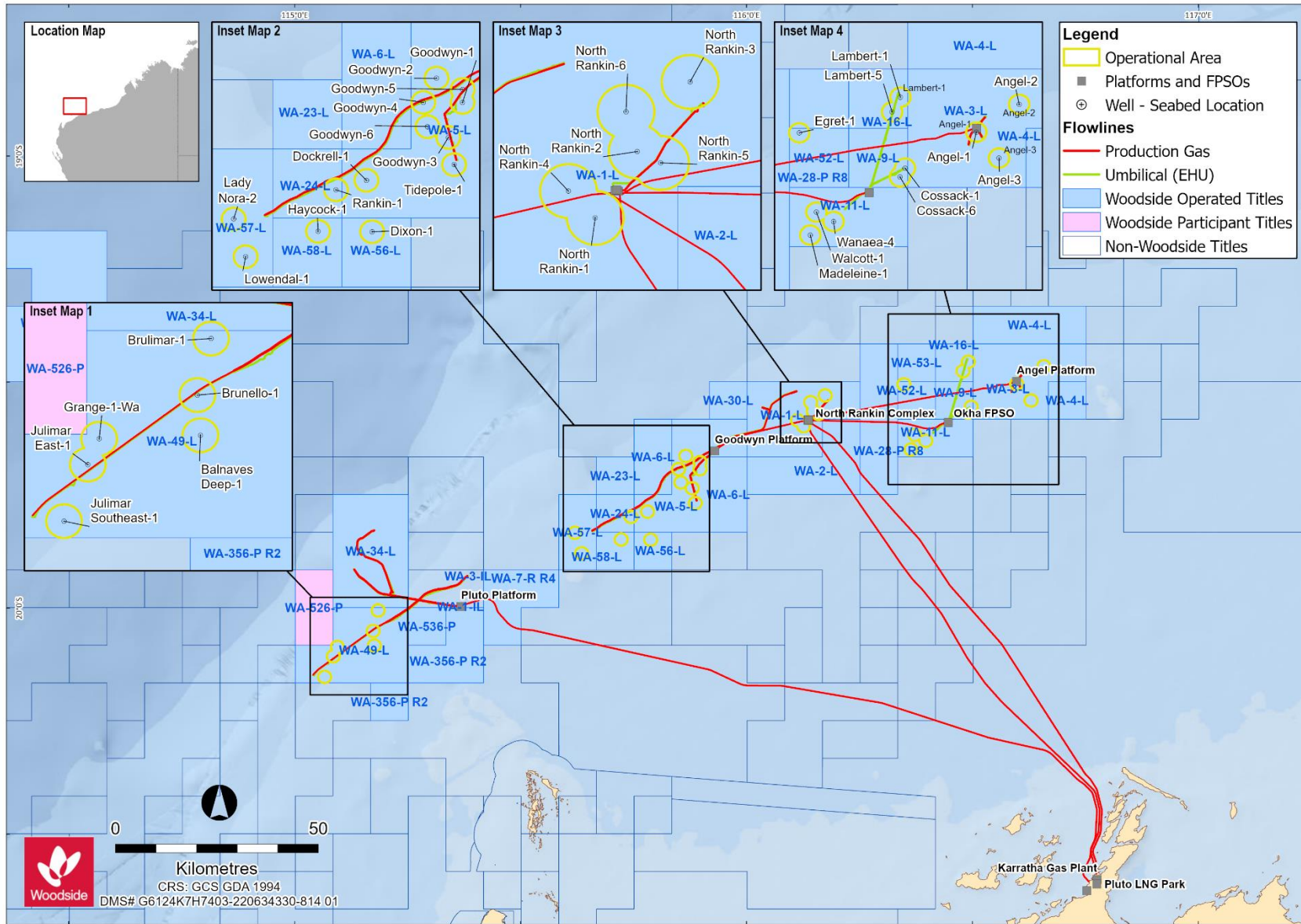


Figure 3-2: Assets within the vicinity of the Operational Area

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4. DISPERSANT APPLICATION

Dispersant is not considered an appropriate response strategy for this activity as described in the NWS and Julimar Exploration Wellhead Decommissioning Environment Plan Appendix D (Woodside's Oil Spill Preparedness and Response Mitigation Assessment).

APPENDIX A – CREDIBLE SPILL SCENARIOS AND HYDROCARBON INFORMATION

Table A - 1: Credible spill scenarios and hydrocarbon information

Scenario	Product	Density (g/cm ³)	Volume	Residue	Weathering rate		Suggested ADIOS2 Analogue ²
CS-01 (NWS) <i>Instantaneous release after a vessel collision at the Angel-3 wellhead</i>	MDO	0.829 at 25 °C	500 m ³	5% (25 m ³)	12 hours (BP < 180 °C)	6%	Diesel Fuel Oil (Southern USA 1) API of 37.2
					24 hours (180 °C < BP < 265 °C)	34.6%	
					Several days (265 °C < BP < 380 °C)	54.4%	
CS-02 (NWS) <i>Instantaneous release after a vessel collision at the Nora-2 wellhead</i>	MDO	0.829 at 25 °C	500 m ³	5% (25 m ³)	12 hours (BP < 180 °C)	6%	Diesel Fuel Oil (Southern USA 1) API of 37.2
					24 hours (180 °C < BP < 265 °C)	34.6%	
					Several days (265 °C < BP < 380 °C)	54.4%	
CS-01 (Julimar) (WCCS) <i>Instantaneous release after a vessel collision at the Balnaves Deep-1 wellhead</i>	MDO	0.829 at 25 °C	500 m ³	5% (25 m ³)	12 hours (BP < 180 °C)	6%	Diesel Fuel Oil (Southern USA 1) API of 37.2
					24 hours (180 °C < BP < 265 °C)	34.6%	
					Several days (265 °C < BP < 380 °C)	54.4%	

² Initial screening of possible ADIOS2 analogues considered hydrocarbons with similar APIs. Suggested selection is based on the closest distillation cut to the Woodside hydrocarbon. Only hydrocarbons with >380°C distillation cuts were included in selection process.

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APPENDIX B – NOTIFICATION FORMS

Table B - 1: Notification forms

No.	Form Name	Link
1	Record of initial verbal notification to NOPSEMA template	■
2	NOPSEMA Incident Report Form	■
3	Marine Pollution Report (POLREP – AMSA)	■
4	AMOSOC Service Contract	■
5	Marine Pollution Report (POLREP – DoT)	■
6a	OSRL Initial Notification Form	■
6b	OSRL Mobilisation Activation Form	■
7	RPS Response Oil Spill Trajectory Modelling Request	■
8	Aerial Surveillance Observer Log	■
9	Tracking buoy deployment instructions	■

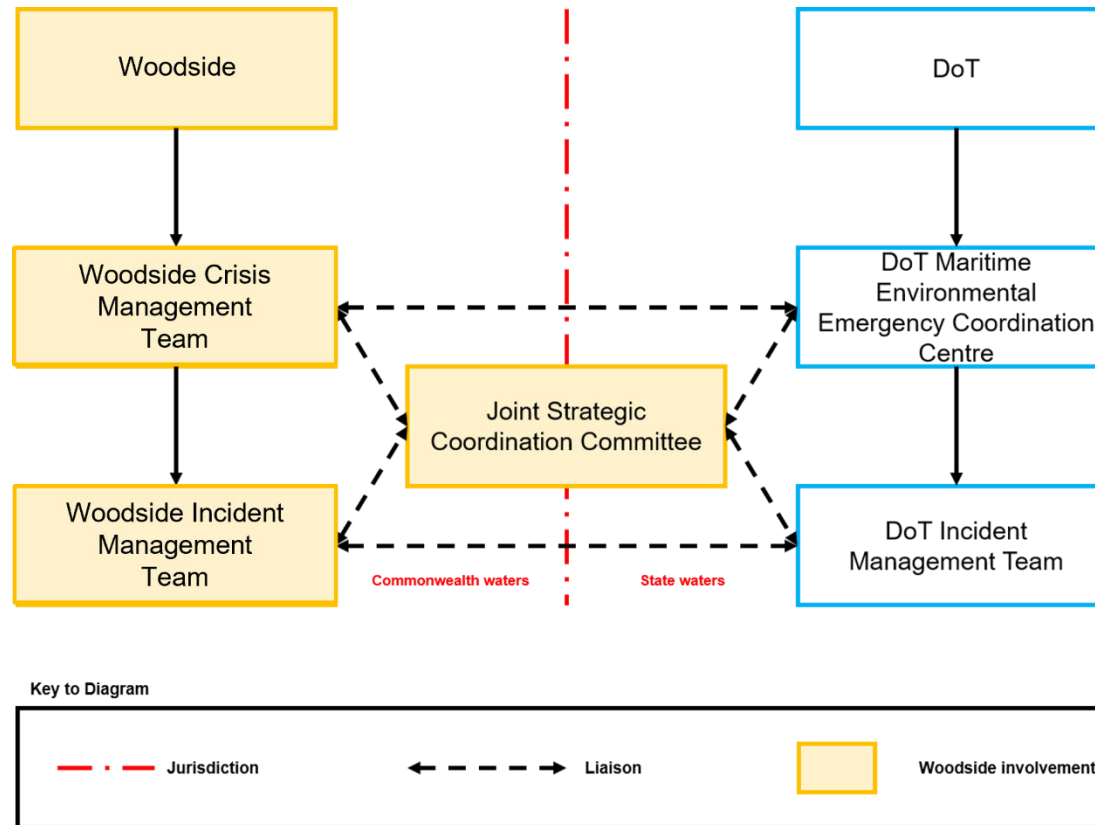
FORM 1 – RECORD OF INITIAL VERBAL NOTIFICATION TO NOPSEMA

NOPSEMA phone: _____		
Date of call	_____	
Time of call	_____	
Call made by	_____	
Call made to	_____	
Information to be provided to NOPSEMA:		
Date and time of incident/ time caller became aware of incident	_____	
Details of incident	1. Location	_____
	2. Title	_____
	3. Source	<input type="checkbox"/> Platform
		<input type="checkbox"/> Pipeline
		<input type="checkbox"/> FPSO
		<input type="checkbox"/> Exploration drilling
		<input type="checkbox"/> Well
	<input type="checkbox"/> Other (please specify)	_____
	4. Hydrocarbon type	_____
5. Estimated volume	_____	
6. Has the discharge ceased?	_____	
7. Fire, explosion or collision?	_____	
8. Environment Plan(s)	_____	
9. Other Details	_____	
Actions taken to avoid or mitigate environmental impacts	_____	
Corrective actions taken or proposed to stop, control or remedy the incident	_____	
After the initial call is made to NOPSEMA, please send this record as soon as practicable to:		
NOPSEMA	_____	
NOPTA	_____	
DMIRS	_____	

APPENDIX C – SPILL ASSESSMENT QUESTIONS

What has happened?		
Date/time		
Spill source		
Spill cause		
Safety situation		
What is it?		
Oil type and name		
Oil properties	Specific gravity	
	Viscosity	
	Pour point	
	Asphaltenes	
	Wax content	
	Boiling point	
Where is it?		
Latitude and longitude		
Distance and bearing		
Affected area	<input type="checkbox"/> Offshore	
	<input type="checkbox"/> Subsea	
	<input type="checkbox"/> Shoreline	
	<input type="checkbox"/> Estuary	
	<input type="checkbox"/> Port	
	<input type="checkbox"/> Harbour	
	<input type="checkbox"/> Inland	
	<input type="checkbox"/> River	
	<input type="checkbox"/> Other (please detail):	
Water depth		
How big is it?		
Area		
Release type	<input type="checkbox"/> Instantaneous	Estimated volume:
	<input type="checkbox"/> Continuous release	Estimated release rate:
Where it is going?		
Metocean conditions		
Currents and tides		
What is in the way?		
Resources at risk		
Time until resource contact		
What's happening to it?		
Weathering processes		
Response actions underway		

APPENDIX D – COORDINATION STRUCTURE FOR A CONCURRENT HYDROCARBON SPILL IN BOTH COMMONWEALTH AND STATE WATERS/ShORELINES³



The Control Agency for a hydrocarbon spill in Commonwealth waters resulting from an offshore petroleum activity is Woodside (the Petroleum Titleholder).

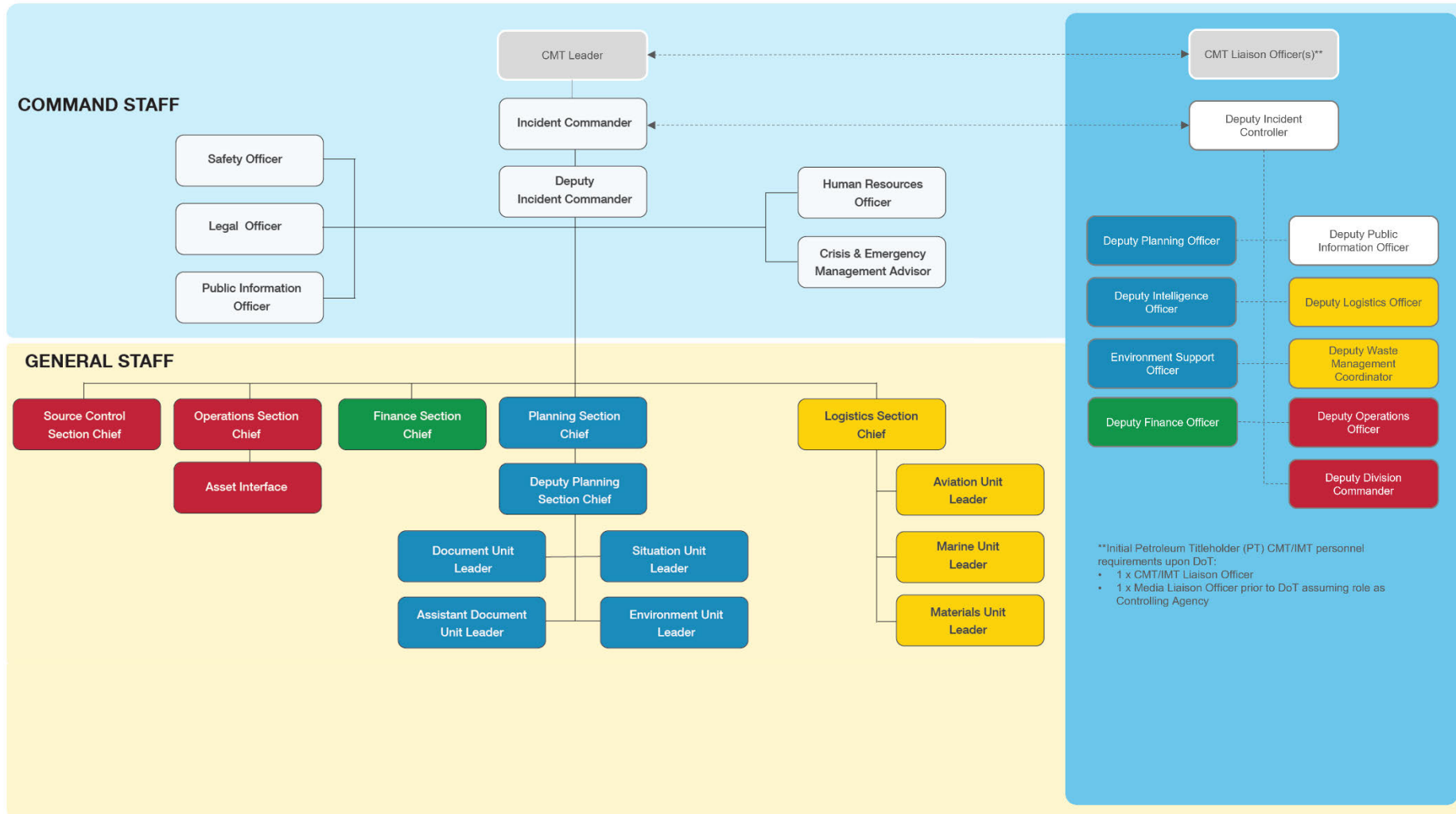
The Control Agency/HMA for a hydrocarbon spill in State waters/shorelines resulting from an offshore petroleum activity is DoT. DoT will appoint an Incident Controller and form a separate IMT to only manage the spill within State waters/shorelines.

³ Adapted from DoT Offshore Petroleum Industry Guidance Note, Marine Oil Pollution: Response and Consultation Arrangements July 2020. Note: For full structure up to Commonwealth Cabinet/Minister refer to Marine Oil Pollution: Response and Consultation Arrangements Section 6.5, Figure 4.

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APPENDIX E – WOODSIDE INCIDENT MANAGEMENT STRUCTURE

Woodside Incident Management Structure for Hydrocarbon Spill (including Woodside Liaison Officers Command Structure within DoT IMT if required).



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APPENDIX F – WOODSIDE LIAISON OFFICER RESOURCES TO DOT

In the event that DoT is required to establish an IMT, Woodside will make available an appropriate number of appropriately qualified persons to work within the DoT IMT. In the event the PPA is the Control Agency within the Dampier Port Limits, Woodside will make available similar roles as requested.

It is an expectation that Woodside's nominated CMT Liaison Officer and the Deputy Incident Controller attend the DoT Fremantle ICC as soon as possible after the formal request has been made by the State Marine Pollution Coordinator (SMPC), and no later than 8am on the day following the request being formally made. For Woodside personnel designated to serve in DoT's Forward Operating Base (FOB), it is expected that they arrive at the FOB no later than 24 hours from the formal request being made by the SMPC.

Area	Role	Woodside personnel ⁴	Key Duties	#
DoT Maritime Environmental Emergency Coordination Centre (MEECC)	CMT Liaison Officer	CIMT Liaison	<ul style="list-style-type: none"> Provide a direct liaison between the CMT and the MEECC. Facilitate effective communications and coordination between the CIMT Leader and State Marine Pollution Coordinator (SMPC). Offer advice to SMPC on matters pertaining to PT crisis management policies and procedures. 	1
DoT IMT Incident Control	Deputy Incident Controller	Deputy Incident Commander (Deputy IC)	<ul style="list-style-type: none"> Provide a direct liaison between the PT IMT and DoT IMT. Facilitate effective communications and coordination between the PT IC and the DoT IC. Offer advice to the DoT IC on matters pertaining to PT incident response policies and procedures. Offer advice to the Safety Coordinator on matters pertaining to PT safety policies and procedures, particularly as they relate to PT employees or contractors operating under the control of the DoT IMT. 	1
DoT IMT Intelligence	Deputy Intelligence Officer	Situation Unit Leader (Intelligence)	<ul style="list-style-type: none"> As part of the Intelligence Team, assist the Intelligence Officer in the performance of their duties in relation to situation and awareness. Facilitate the provision of relevant modelling and predications from the PT IMT. Assist in the interpretation of modelling and predictions originating from the PT IMT. 	1

⁴ These positions would be mobilised, in consultation with DoT, to align to the actual spill scenario. The selected roles and/or individual personnel would be subject to continued evaluation to ensure continued 'best fit'. For CIMT roster arrangements, contact the WCC. During a prolonged response, additional personnel may be sourced through internal resourcing and mutual Aid agreements such as the AMOSC Core Group via [REDACTED]

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Area	Role	Woodside personnel ⁴	Key Duties	#
			<ul style="list-style-type: none"> Facilitate the provision of relevant situation and awareness information originating from the DoT IMT to the PT IMT. Facilitate the provision of relevant mapping from the PT IMT. Assist in the interpretation of mapping originating from the PT IMT. Facilitate the provision of relevant mapping originating from the DoT IMT to the PT IMT. 	
DoT IMT Intelligence – Environment	Environment Support Officer	Deputy Environment Unit Leader	<ul style="list-style-type: none"> As part of the Intelligence Team, assist the Environment Coordinator in the performance of their duties in relation to the provision of environmental support into the planning process. Assist in the interpretation of the PT OPEP and relevant TRP plans. Facilitate in requesting, obtaining and interpreting environmental monitoring data originating from the PT IMT. Facilitate the provision of relevant environmental information and advice originating from the DoT IMT to the PT IMT. 	1
DoT IMT Planning-Plans/ Resources	Deputy Planning Officer	Deputy Planning Section Chief	<ul style="list-style-type: none"> As part of the Planning Team, assist the Planning Officer in the performance of their duties in relation to the interpretation of existing response plans and the development of incident action plans and related sub plans. Facilitate the provision of relevant IAP and sub plans from the PT IMT. Assist in the interpretation of the PT OPEP from the PT. Assist in the interpretation of the PT IAP and sub plans from the PT IMT. Facilitate the provision of relevant IAP and sub plans originating from the DoT IMT to the PT IMT. Assist in the interpretation of the PT existing resource plans. Facilitate the provision of relevant components of the resource sub plan originating from the DoT IMT to the PT IMT. <p>(Note this individual must have intimate knowledge of the relevant PT OPEP and planning processes)</p>	1
DoT IMT Public Information-Media/ Community Engagement	Deputy Public Information Officer	Deputy Public Information Officer	<ul style="list-style-type: none"> As part of the Public Information Team, provide a direct liaison between the PT Media team and DoT IMT Media team. Facilitate effective communications and coordination between the PT and DoT media teams. Assist in the release of joint media statements and conduct of joint media briefings. 	1

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Area	Role	Woodside personnel ⁴	Key Duties	#
			<ul style="list-style-type: none"> Assist in the release of joint information and warnings through the DoT Information and Warnings team. Offer advice to the DoT Media Coordinator on matters pertaining to PT media policies and procedures. Facilitate effective communications and coordination between the PT and DoT Community Liaison teams. Assist in the conduct of joint community briefings and events. Offer advice to the DoT Community Liaison Coordinator on matters pertaining to the PT community liaison policies and procedures. Facilitate the effective transfer of relevant information obtained from through the Contact Centre to the PT IMT. 	
DoT IMT Logistics	Deputy Logistic Officer	Deputy Logistics Section Chief	<ul style="list-style-type: none"> As part of the Logistics Team, assist the Logistics Officer in the performance of their duties in relation to the provision of supplies to sustain the response effort. Facilitate the acquisition of appropriate supplies through the PTs existing OSRL, AMOSC and private contract arrangements. Collects Request Forms from DoT to action via PT IMT. <p>(Note this individual must have intimate knowledge of the relevant PT logistics processes and contracts)</p>	1
DoT IMT Finance-Accounts/ Financial Monitoring	Deputy Finance Officer	Deputy Finance Section Chief	<ul style="list-style-type: none"> As part of the Finance Team, assist the Finance Officer in the performance of their duties in relation to the setting up and payment of accounts for those services acquired through the PTs existing OSRL, AMOSC and private contract arrangements. Facilitate the communication of financial monitoring information to the PT to allow them to track the overall cost of the response. Assist the Finance Officer in the tracking of financial commitments through the response, including the supply contracts commissioned directly by DoT and to be charged back to the PT. 	1
DoT IMT Operations	Deputy Operations Officer	Deputy Operations Section Chief	<ul style="list-style-type: none"> As part of the Operations Team, assist the Operations Officer in the performance of their duties in relation to the implementation and management of operational activities undertaken to resolve an incident. Facilitate effective communications and coordination between the PT Operations Section and the DoT Operations Section. Offer advice to the DoT Operations Officer on matters pertaining to PT incident response procedures and requirements. 	1

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Area	Role	Woodside personnel ⁴	Key Duties	#
			<ul style="list-style-type: none"> Identify efficiencies and assist to resolve potential conflicts around resource allocation and simultaneous operations of PT and DoT response efforts. 	
DoT IMT Operations – Waste Management	Deputy Waste Management Coordinator	Deputy Waste Coordinator (Materials)	<ul style="list-style-type: none"> As part of the Operations Team, assist the Waste Management Coordinator in the performance of their duties in relation to the provision of the management and disposal of waste collected in State waters. Facilitate the disposal of waste through the PT's existing private contract arrangements related to waste management and in line with legislative and regulatory requirements. Collects Request Forms from DoT to action via PT IMT. 	1
DoT FOB Operations Command	Deputy Division Commander	FOB Deputy Incident Commander	<ul style="list-style-type: none"> As part of the Field Operations Team, assist the Division Commander in the performance of their duties in relation to the oversight and coordination of field operational activities undertaken in line with the IMT Operations Section's direction. Provide a direct liaison between the PT FOB and DoT FOB. Facilitate effective communications and coordination between the PT Division Commander and the DoT Division Commander. Offer advice to the DoT Division Commander on matters pertaining to PT incident response policies and procedures. Assist the Safety Coordinator deployed in the FOB in the performance of their duties, particularly as they relate to PT employees or contractors. Offer advice to the Safety Coordinator deployed in the FOB on matters pertaining to PT safety policies and procedures. 	1
Total				11

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APPENDIX G – DOT LIAISON OFFICER RESOURCES TO WOODSIDE

Once DoT activates a State waters/shorelines IMT, DoT will make available the following roles to Woodside.

Area	DoT Liaison Role	Personnel Sourced from:	Key Duties	#
Woodside CIMT	DoT Liaison Officer (prior to DoT assuming Controlling Agency)/ Deputy Incident Controller – State waters (after DoT assumes Controlling Agency)	DoT	<ul style="list-style-type: none"> Facilitate effective communications between DoT’s SMPC/ Incident Controller and the Petroleum Titleholder’s appointed CMT Leader / Incident Controller. Provide enhanced situational awareness to DoT of the incident and the potential impact on State waters. Assist in the provision of support from DoT to the Petroleum Titleholder. Facilitate the provision technical advice from DoT to the Petroleum Titleholder Incident Controller as required. 	1
Woodside CIMT Public Information – Media	DoT Media Liaison Officer	DoT	<ul style="list-style-type: none"> Provide a direct liaison between the PT Media team and DoT IMT Media team. Facilitate effective communications and coordination between the PT and DoT media teams. Assist in the release of joint media statements and conduct of joint media briefings. Assist in the release of joint information and warnings through the DoT Information & Warnings team. Offer advice to the PT Media Coordinator on matters pertaining to DoT and wider Government media policies and procedures. 	1
Total DoT Personnel Initial Requirement to Woodside				2

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APPENDIX I: PROGRAM OF ONGOING ENGAGEMENT WITH TRADITIONAL CUSTODIANS

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Proposed Program of Ongoing Engagement with Traditional Custodians

This Program of Ongoing Engagement with Traditional Custodians (“Program”) has been developed to demonstrate Woodside’s commitment to ongoing engagement and support of Traditional Custodians’ capacity to care for and manage Country, including Sea Country, and has been directly informed by Traditional Custodians’ feedback regarding their capacity to engage and consult on Environment Plans.

It is a living document designed to evolve with ongoing consultation and feedback from Traditional Custodians and, at a minimum, will be subject to annual review. In addition to this Program, Woodside will continue to participate in, and support collective industry engagement with Traditional Owners on the development of a future, sustainable, industry wide Program. Through the Program, Woodside actively supports Traditional Custodians’ capacity for, and involvement in, ongoing engagement and feedback on environment plans.

The Program has been developed so that Traditional Custodians can, on an ongoing basis, provide Woodside with feedback relating to the possible consequences of an activity to be carried out under an environment plan on their functions, interests and activities as they relate to cultural values. This feedback will be evaluated in conjunction with Traditional Custodians and, where necessary, avoidance or mitigation strategies will be developed in collaboration with Traditional Custodians. How the Program is implemented with specific Traditional Custodians will depend on their stated needs and priorities

The Program is underpinned by Woodside’s First Nations Communities Policy (woodside.com), the objective of which is to ensure Woodside partners and engages with First Nations communities to create positive economic, social and cultural outcomes that leave a lasting legacy. Woodside does this through building respectful relationships and partnerships with First Nations communities where we are active, in the areas where they are most interested in. We acknowledge the unique connection that First Nations communities have to land, waters and the environment.

The Program will include, as agreed with relevant communities, reasonable commitment to:

1. Support for ongoing dialogue and engagement

Woodside will support the capacity of Traditional Custodians to participate in ongoing dialogue and engagement about the environment plans and to enable the ongoing and future identification of cultural values potentially impacted by Woodside’s activities. Woodside further commits to agreeing consultation protocols with individual Traditional Custodians to ensure the material provided is appropriate in level of detail such that the potential for cultural impact from Woodside activities can be determined and as required measures can be adopted to avoid or minimise impact.

In addition, Woodside will receive feedback on cultural values from an individual person or organisation that identifies as a Traditional Custodian, at any stage during the development and implementation of activities. This feedback will be evaluated, in conjunction with the Traditional Custodian individual or group and if required, control measures will put in place to avoid impacts to cultural values, or where avoidance is not possible, to minimise and mitigate the impacts to an acceptable level.

Where cultural values are identified post activity completion, any controls relevant to value management will be implemented during the next relevant activity.

2. Support for the identification and recording of cultural features

Woodside will support Traditional Custodians to record and articulate their Sea Country values and will invest in cultural assessments codesigned with Traditional Custodians, where required, to inform potential risks to cultural values from our petroleum activities.

This may include supporting cultural mapping by Traditional Custodians to identify and map significant cultural features including archaeological sites and other cultural values. The scoping of the mapping process will be codesigned with Traditional Custodians.

Woodside understands that cultural knowledge remains the intellectual property of Traditional Custodians and will agree with Traditional Custodians at the outset how that information from surveys will be used to feedback into and inform the environment plan's design and implementation.

In addition, Woodside applies the Cultural Heritage Management Procedure 2019, updated in 2023, to the Program which:

- provides a process for the identification, protection, and management of Cultural Heritage taking into account relevant standards, in particular, the United Nations Declaration on the Rights of Indigenous Peoples, the Charter for the Protection and Management of the Archaeological Heritage, the Convention for the Safeguarding of the Intangible Cultural Heritage, and the Convention on the Protection of the Underwater Cultural Heritage;
- applies to underwater cultural heritage and, consistent with current practice, provides for the commissioning of (where appropriate) both archaeological and ethnographic assessments of cultural values over the submerged landscape; and
- the process includes the following:
 - early engagement with relevant Traditional Custodians
 - identification of potential heritage, this could include desktop and field surveys undertaken with the Traditional Custodians.
- the development of cultural management strategies; and, where it is determined cultural heritage may be impacted, the development of Cultural Heritage Management Plans codesigned with Traditional Custodians and implemented by Woodside's First Nations team which:
 - focus on avoidance or minimisation of impacts; and
 - provide regular reviews and for inclusion of new information and further development of the Cultural Heritage Management Plan.

Woodside is committed to continue to receive feedback on cultural values for the life of an environment plan, the inclusion of new information and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians. This information will be recorded via the Woodside Management of Knowledge Process and any potential impacts to the accepted Environment Plan evaluated via the Woodside Management of Change Process.

3. Building capacity for the ongoing protection of country

Woodside will support measures to increase the capability and capacity of the Traditional Custodian groups. This is guided by Woodside's Indigenous Affairs Strategy 2019 ("Strategy"), which is designed to enable the building and maintaining of relationships with Traditional Custodians to leave a lasting legacy, including strengthening of Traditional Custodians' capacity to care for and manage Country, including Sea Country. The Strategy was developed with inputs from Traditional Custodians and contains four pillars that direct Woodside's social investment, policies relating to economic development, procurement and employment, and Woodside's agreement making and implementation of agreements. The pillars are:

1. Culture and Heritage Management: support social outcomes through protection, recognition and respect for culture and heritage;
2. Economic Participation: provide training, jobs, and business opportunities;

3. Capability and capacity: ensure strong corporate governance, leadership development and education initiatives to support self-determination; and
4. Safer and Healthier Communities: partner with Aboriginal people and service providers to maximise safer and healthier community outcomes.

Woodside is committed to an ongoing relationship between Woodside and the Traditional Custodian groups. Through consultation with Traditional Custodians Woodside will continue to:

- establish support for Indigenous ranger programs via social investment;
- establish support for Indigenous oil spill response capability via investigating training models;
- establish support for identification and recording of cultural values and the management of that information by Traditional Custodians;
- establish support for programs identified by the Traditional Custodians as important to them and as agreed by Woodside.

4. Support for capacity and capability in relation to governance

Pillar 3 of the Indigenous Affairs Strategy 2019 focuses on ensuring strong corporate governance, leadership development and education initiatives to support self-determination. To enable this, Woodside will support measures to increase the capability and capacity of the Traditional Custodian groups, including in relation to governance and management systems.

The nature of this support will be informed by the individual needs of Traditional Custodian groups, but may include:

- funding or other support for community meetings, particularly where consultation with representative bodies lies outside of that body's core business and cultural authority or mandate needs to be secured,
- resourcing internal expertise so that information is managed consistently and internally, including ensuring appropriate record keeping of consultation to provide stakeholders with a lasting record of discussions, and
- development or upgrade of IT systems to manage information.

5. Program Reporting and Review of Effectiveness

Woodside will undertake an annual review of the Program to assess its effectiveness and adapt the Program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.

Progress of the Program will be reported annually in line with annual sustainability reporting via the Woodside website.

6. Current Status

Following distribution of this proposed Program, Woodside is now participating in a number of specific ongoing consultation activities with Traditional Custodian Relevant Persons. Specific ongoing activities are tabulated below:

Traditional Custodian Relevant Person	Ongoing Consultation Description	Forward Plan	Estimated Timeframes
Buurabalayji Thalanyji Aboriginal Corporation (BTAC)	BTAC proposed a Collaboration Agreement in May 2023, Woodside agreed in principle, and exchanged correspondence to understand details of the proposal. The Collaboration Agreement would enable support for BTAC to undertake an ethnographic assessment to articulate values, and ensure appropriate cost recovery.	Woodside and BTAC have executed a Costs Acceptance Letter. Woodside has developed a Collaboration Agreement which is currently under internal Woodside review. Once settled internally it will be put to BTAC for their consideration.	The draft Collaboration Agreement will be provided to BTAC for consideration in January 2024. Woodside will follow up on a monthly basis for at least six months with BTAC once they are in receipt of the draft proposed Collaboration Agreement from Woodside, or until the Agreement is in place.
Yamatji Marlpa Aboriginal Corporation (YMAC)	In June 2023, YMAC provided Woodside a proposed draft Framework Agreement, and a proposal to fund in-house expertise to support consultation and implement the Collaboration Framework. In July 2023, Woodside agreed in principle to the proposed Consultation Framework and the funding proposal and requested a meeting to work together on details. Woodside provided the Proposed Program of Ongoing Consultation to complement the proposed Consultation Framework.	Woodside will continue to communicate with YMAC, seeking to collaborate and reach agreement on the proposed Consultation Framework and funding agreement. At the point of EP submission, Woodside is seeking a meeting with YMAC at YMAC's earliest convenience.	Woodside will follow up with YMAC on a monthly basis for at least six months, seeking to progress the Consultation Framework and funding agreement.
Wirrawandi Aboriginal Corporation (WAC)	In August 2023, WAC proposed a Framework Agreement with Woodside to provide a streamlined, formalised approach to consultation between WAC and Woodside. Woodside has confirmed receipt of the proposed framework from WAC.	Woodside is in contact with the WAC CEO and is currently developing a response to the proposed Framework Agreement put forward by WAC. WAC do not object to Woodside progressing environmental plans on the proviso that both parties enter into an Agreement suitable to each party. WAC have suggested a timeframe to settle the Agreement over the next 2-3 months. Woodside will be aiming to reach agreement within a shorter timeframe.	Ongoing Framework Agreement settled in 2024.
Ngarluma Aboriginal Corporation (NAC)	In September 2023, NAC proposed a Joint Working Group to practically manage consultation processes. It was proposed that the group would meet monthly for 2023 and quarterly thereafter, meetings would include NAC CEO and NAC Directors and potentially independent SME/s, the proposal was that Woodside draft a Framework Agreement, and included a request for funding for this approach. Woodside provided in-principle support for the proposal.	Woodside has provided in-principle support for NAC's proposal and is currently developing a draft Framework Agreement which once settled internally will be sent to NAC for their response.	In accordance with NAC's proposed timeframe, Woodside aims to prepare a draft Framework Agreement, settle internally and then meet to discuss in 2024.
Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)	In a meeting during August 2023, NTGAC proposed a Framework Agreement. This included terms for ongoing	Woodside and NTGAC/YMAC have agreed in writing to develop a Framework Agreement. Woodside have been responding to queries from NTGAC who have passed	Woodside will follow up with NTGAC on a monthly basis for at least six months, seeking to

	engagement such as frequency of consultation, participation, and content. NTGAC has also requested Woodside provide funding for an in-house environmental scientist to review material. Woodside agreed in principle to this approach, and has requested a first draft of the Framework Agreement for consideration. Woodside have agreed to pay for YMAC's in-house scientist to attend NTGAC meetings to advise NTGAC.	information provided by Woodside onto their Environmental Scientist. Woodside are awaiting a proposed draft of a Framework Agreement and general report. YMAC's preference is to prepare the drafts, Woodside have offered to assist with drafting and remain ready to respond on receipt of documents.	progress the Framework Agreement and general report.
Yinggarda Aboriginal Corporation (YAC)	In August 2023, YAC requested Woodside provide a draft Framework Agreement for their consideration. Woodside has provided a draft Framework Agreement to YAC for review.	Woodside's Proposal suggests meeting with YAC every 3 months to progress matters. The Proposal suggests committing to work continuing between meetings with each party nominating focal points. A Scope of Work and schedule of rates is included to re-imburse the cost of ongoing consultation. Woodside's Proposal includes timeframes for anticipated milestones and has suggested the Proposal be in place for an initial 2-year period. Woodside has provided the draft Framework Agreement to YAC; they have advised that they will seek direction from the YAC Board on the proposal.	Woodside will continue following up with YAC on a monthly basis for at least six months, seeking to progress the Framework Agreement.
Robe River Kuruma Aboriginal Corporation (RRKAC)	RRKAC have noted that they are insufficiently resourced to engage further and respond to Woodside regarding EPs. Woodside assesses that a Framework Agreement could address this.	Woodside has on several occasions written to RRKAC offering to fund consultation meetings. Woodside will offer RRKAC a Framework Agreement which will propose funding, scope of work and timeframes to assist with consultation and ongoing consultation. If RRKAC are open to the proposal, it is intended to put forward a draft Framework Agreement to RRKAC within the next 2 months.	Woodside will follow up with RRKAC monthly for at least six months, seeking to progress a Framework Agreement.
Ngarluma Yindjibarndi Foundation Limited (NYFL)	NYFL and Woodside have an existing Agreement in place which enables quarterly communication about Woodside activities. NYFL has said they are working with other First Nations organisation and representative Bodies developing a Framework Agreement.	Woodside has not yet seen a draft of the Framework Agreement. Woodside's expectation is that it will outline principles of engagement, details of resourcing, timeframes to meet agreed outcomes etc. Woodside look forward to receiving a draft Agreement and will engage with NYFL to settle on the details of any proposal.	Woodside will continue to follow up monthly with NYFL for at least six months, seeking to progress a Framework Agreement.
Yindjibarndi Aboriginal Corporation	Yindjibarndi have advised that they are represented by NYFL for consultation on oil and gas matters. NYFL and Woodside have met to discuss the consultation framework to be used by NYFL as representatives of Yindjibarndi. Woodside will seek to use the Framework Agreement proposed by NYFL (above) for ongoing consultation with Yindjibarndi.	Per NYFL above.	Per NYFL above.
Kariyarra Aboriginal Corporation (KAC)	In September 2023 KAC proposed an agreement which would include meeting arrangements, ongoing consultations, specialist advice and contact protocols.	Woodside support funding request that are reasonable and will seek to reach agreement on a funding proposal put forward by KAC. Woodside agrees that a Engagement Protocol is a sound tool to set out ongoing consultation with KAC, funding arrangements and social investment opportunities that KAC would want explored. Woodside will propose a first draft of a protocol and put to KAC in the first	Woodside will continue to follow up monthly with KAC for at least six months, seeking to progress and Engagement Protocol.

		instance. Woodside will prepare a draft protocol within the next two months to for KAC's consideration.	
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