Esso Australia Resources Pty Ltd

Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan Summary

REVISION HISTORY

Rev	Revision/Status	Date	Prepared
1	Re-Issued for Use	13/2/18	MH
0	Issued for Use	7/2/18	HH/AK

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Abbreviations

Abbreviation	Description
AFMA	Australian Fisheries Management Authority
AHS	Australian Hydrographic Society
ALARP	As Low As Reasonably Practicable
AMOSC	Australian Marine Oil Spill Centre
AMSA	Australian Maritime Safety Authority
APASA	Asia Pacific Applied Science Association
AS/NZS	Australian Standards/New Zealand Standards
ATBA	Area To Be Avoided
BOM	Bureau of Meteorology
CO	Carbon Monoxide
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
DoEE	Department of the Environment and Energy
DoIIS	Department of Industry, Innovation and Science
EP	Environment Plan
EPA	Environment Protection Authority
EPBC	Environment Protection and Biodiversity Conservation

ERA	Environmental Risk Assessment
ESG	Emergency Support Group
FIMS	Facility Integrity Management System
IMT	Incident Management Team
JRCC	Joint Rescue Coordination Centre
LEFCOL	Lakes Entrance Fishing Co-operative Limited
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships
MSDS	Material Safety Data Sheet
NM	Nautical Mile
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
OCNS	Offshore Chemical Notification Scheme
ODSP	Open Drain Skimmer Piles
OIMS	Operations Integrity Management System
OIW	Oil-In-Water
OPEP	Oil Pollution Emergency Plan
OPGGS Act	Offshore Petroleum and Greenhouse Gas Storage Act 2006
OSR	Oil Spill Response
OSTM	Oil Spill Trajectory Modelling
PIC	Person In Charge
RAMSAR	Convention on Wetlands of International Importance
RRT	Regional Response Team
SESSF	Southern and Eastern Scalefish and Shark Fishery
SSHE	Safety, Security, Health, Environment
ZPI	Zone of Potential Impact

1. Introduction

This Environment Plan (EP) summary has been prepared in accordance with the requirements of the Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006 and the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations), per the amended Act and Regulations as at 28 February 2014. This document summarises the Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan, which was accepted by the National Offshore Petroleum Safety Environment Management Authority (NOPSEMA) on 2nd February 2018.

Esso proposes to undertake geophysical and geotechnical surveys across seven licence areas located within Commonwealth waters of the Gippsland Basin in Bass Strait. The survey activities are required to inform a number of prospective future developments in the Gippsland basin.

1.1 Titleholder liaison person

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2. Description of the activity

2.1 Location of operational area

Esso proposes to undertake geophysical and geotechnical surveys (hereafter referred to as “the survey program”) within existing production licence areas.

The survey program will take place in the Gippsland Basin of the eastern Bass Strait as shown in Figure 2-1. For the purpose of this EP, the operational area summarised in Table 2-1 will apply.

The operational area defines the spatial boundary of the survey program as described, risk assessed and managed by the EP. Vessels supporting the survey program operating outside the operational area (e.g. transiting to and from port) are subject to applicable maritime regulations and other requirements and are not managed by this EP.

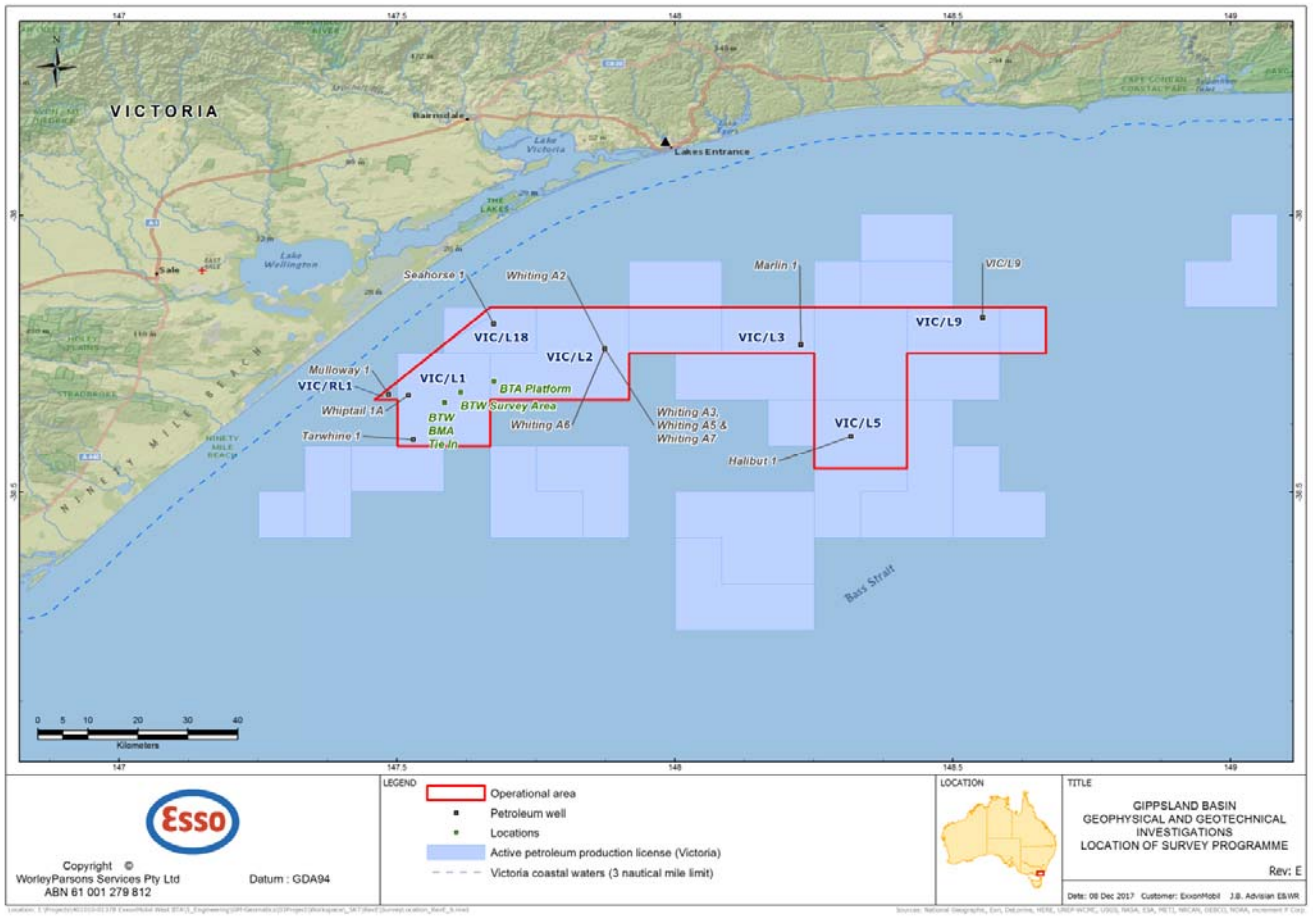

Figure 2-1 Location of operational area

Table 2-1 Approximate location details for operational area

Location	Licence area	Longitude	Latitude	Water depth (m)
BTW Drill Centre	VIC/L1	-38.31837	147.61462	46
BTW BMA Pipeline Tie In	VIC/L1	-38.33682	147.58580	46
BTA Platform	VIC/L2	-38.29829	147.67467	46
Tarwhine 1	VIC/L1	-38.403286	147.529414	42
Whiptail 1A	VIC/L1	-38.3235635	147.5206096	38
Whiting A2 (subsea)	VIC/L2	-38.239984	147.873568	46
WTA Platform Whiting A3, A5, A6 and A7	VIC/L2	-38.2401024	147.8737497	54
Marlin 1	VIC/L3	-38.2326309	148.2271026	60
Halibut 1	VIC/L5	-38.397902	148.317101	73
Seahorse 1	VIC/L18	-38.1951166	147.6741499	42
Mulloway 1	VIC/RL1	-38.321872	147.485111	36
VIC/L9 Drill Centre	VIC/L9	-38.18115	148.59351	89

2.2 Survey timing

The survey program is planned to commence in the first quarter of 2018 and will continue intermittently for less than 60 days over a maximum six month period. Survey activities are likely to occur over a 2 to 15 day period at each of the locations referred to in Table 2-1.

The activities are anticipated to commence initially in February 2018 at the BTW location and then progress to the remaining locations as summarised in Table 2-2 and Table 2-3.

Table 2-2 Indicative timing for the geophysical surveys

Location	Approximate duration	Indicative timing
BTW	5 days	Survey planned for February 2018.
VIC/L9	5 days	March – August 2018
Other Areas	<10 days	March – August 2018

Table 2-3 Indicative timing for the geotechnical surveys

Location	Approximate duration	Indicative timing
BTW	15 days	Survey planned for April 2018.
VIC/L9	15 days	April – October 2018
Other Areas	<10 days	April – October 2018

2.3 Survey program overview

The proposed survey program will be completed in two stages. Stage 1 involving the geophysical survey will commence at BTW and then progress to the additional licence areas. Stage 2 involving the

geotechnical survey will also commence at BTW, approximately two months after the commencement of the geophysical survey and then also progress to the additional licence areas.

2.3.1 Geophysical Survey Program

A geophysical survey is the systematic collection of geophysical data (i.e. measurements of seabed characteristics, imaging and profiling) for assessment of water depths, seabed topography, seabed conditions and identification of obstructions on the seabed. Geophysical lines are proposed to be surveyed using the following conventional techniques:

- Single beam echo sounder (SBES)
- Multi beam echo sounder (MBES)
- Side scan sonar (SSS)
- Sub bottom profiler (SBP) including Ultra high resolution (UHR)
- Magnetometer.

2.3.1.1 Geophysical Equipment Deployment

The survey vessel together with autonomous underwater vehicles (AUV), remotely operated vehicles (ROVs), towfish and/or catamaran will be used to deploy equipment and collect geophysical data.

Proposed deployment methods are summarised in Table 2-4.

Table 2-4 Proposed geophysical equipment deployment method

Geophysical Equipment	Towfish	Surface Tow	DeepTow	Hull Mounted
SBES				✓
MBES				✓
SSS	✓		✓	
CHIRP	✓			✓
Pinger	✓			
Boomer		✓	✓	
Sparker		✓		
Magnetometer			✓	

2.3.2 Environmental Baseline Survey (BTW Only)

The objective of the environmental survey is to collect baseline data from the BTW operational area (and pipeline alignment) through:

- Water Sampling
- Sediment Sampling
- Video Survey.

2.3.3 Geotechnical Survey Program

The objective of the geotechnical survey is to assess and characterize seabed conditions in the nominated locations, specifically:

- To acquire shallow geotechnical samples to support subsea facilities and pipeline design, route selection and seabed stability studies and to calibrate/interpret geophysical records
- To acquire geologic cores to aid in understanding the local geology and geo-hazards and help establish ages of key seabed features.

The geotechnical survey will involve the following activities:

- Borehole drilling at potential drill rig spud can locations
- PLEM (Pipeline End Manifold) seabed sampling and PCPT (Piezocone Penetration Test)
- Pipeline seabed sampling and PCPT along the pipeline route.

Table 2-5 Survey parameters for the Geotechnical Field Program

	West Barracouta	VIC/L9	Other Areas
Number of Survey Locations	3	1	6
Water Depth (m)	46	89	36-73
Number of 80m depth boreholes (max)	1	4	6
Number of 30m depth boreholes (max)	2	8	12
Number of 6m depth vibracores or piston cores (max)	3	3	0
Number of 3m depth vibracores or piston cores (max)	4	4	0
Notes: PCPT testing will be undertaken on all cores collected			

Two separate vessels are likely to be contracted to complete the survey program.

2.4 Activities that have the potential to impact the environment

Activities that have the potential to impact the environment include:

Vessel presence and operations

- Underwater noise from geophysical sources (RA 1)
- Underwater noise from vessel (RA 2)
- Fuel combustion equipment on vessel (RA 4)
- Disposal of sewage, food wastes and grey water from vessel (RA 5)
- Vessel oily water (bilge) discharge (RA 6)
- Vessel deck drainage (RA 7)
- Physical presence – Interference with other marine users (RA 8).

Drilling, coring and seabed samples

- Disturbance to seabed, benthic organisms and water column as a result of survey activities (RA 9)

Unplanned events

- Introduction of marine pest species (RA 10)
- Vessel movements - collision with fauna (RA 11)
- Dropped objects (RA 12)
- Loss of hazardous and non-hazardous waste (RA 13)
- Loss of containment of hydrocarbons or diesel (RA 14)
- Oil spill response (RA15)

The risks associated with these activities were assessed for their potential impact on the environment and are outlined in Section 4.2.

3. Description of the environment

3.1 Overview

The key existing environment characteristics are described in terms of the operational area and the zone of potential impact (ZPI) as shown in (Figure 3-1). This is the zone impacted by a worse case spill scenario.

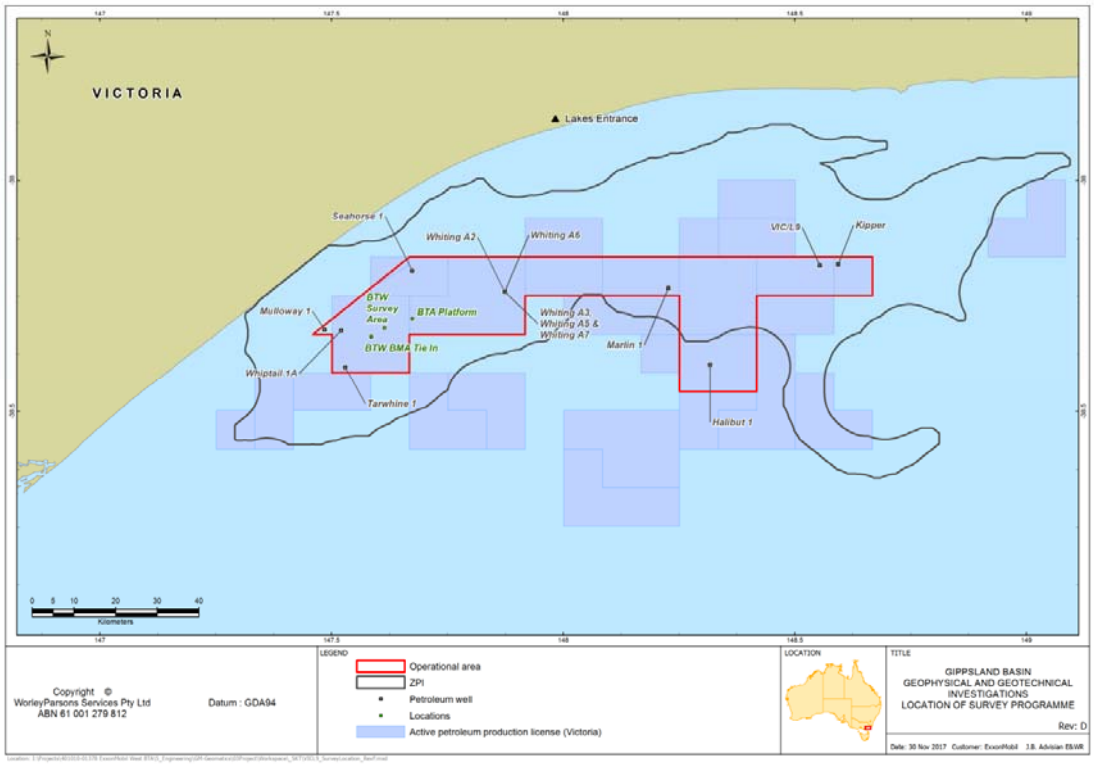

Figure 3-1 Operational Area and ZPI for the Geophysical and Geotechnical Activities

3.2 Regional context

The operational area is located in the South-east Shelf Transition bioregion of the South-east marine region. The continental shelf is relatively broad and shallow in the southern area of the Gippsland Basin. The area is strongly influenced by a number of different currents that run along, through and nearby the

shelf, bringing both warm and cool currents. Nutrients from cooler upwelling bring rich biota that thrives in the warmer shallower shelf region. Fauna is characterised by assemblages of fish, echinoderm, gastropods and bivalves.

3.3 Physical environment

Bass Strait is the region of the continental shelf that separates mainland Australia from Tasmania. The strait, including the operational area and ZPI, is located in a relatively shallow area of the continental shelf.

Wind speeds are in the range of 10 to 30 km per hour, with maximum gusts reaching 100 km per hour. The wind direction is predominately westerly during winter, westerly and easterly during spring and autumn (when wind speeds are highest) and easterly during summer. Strong south-easterly winds can be generated by low pressure systems known as 'east coast lows' (BOM 2017).

Average summer air temperatures in coastal Victoria range from early morning lows of 12 to 15°C to afternoon highs of 23 to 26°C (BOM 2017). Average winter temperatures range from minimums of 4°C to maximums of 15°C in the afternoons. Offshore (on Deal Island in central Bass Strait), milder conditions occur with an average summer range of 13 to 21°C and an average winter range of 9 to 14°C (BOM 2017).

Average annual rainfall along the Gippsland coast ranges from approximately 500 mm to more than 1,000 mm (BOM 2017).

Currents around the operational area location are tide and wind driven. Tidal movements predominantly have a northeast–southwest orientation. Tidal flows come from the east and west during a rising (flood) tide, and flow out to the east and west during a falling (ebb) tide. Tidal streams are dominated by the lunar tidal constituent, which has a period of 12.4 hours.

Wind driven currents in the operational area can be caused by the direct influence of weather systems passing over Bass Strait (wind and pressure driven currents) and the indirect effects of weather systems passing over the Great Australian Bight (GEMS 2005).

Temperatures in the subsurface waters of the operational area range from about 13°C in August/September to 16°C in February/March. Surface temperatures can exceed 20°C at times in late summer due to the warmer waters of the East Australia Current entering the strait.

Waters are generally well mixed, but surface warming sometimes causes weak stratification in calm summer conditions. Upwelling of cold water on the northern shores of Bass Strait can also occur (Jones 1980).

High wave conditions are generally associated with strong west to southwest winds caused by the eastward passage of low pressure systems across Bass Strait. Storms may occur several times a month resulting in wave heights of 3 to 4 m or more. In severe cases, southwest storms can result in significant wave heights of greater than 6 m (Jones 1980).

The bathymetry in the ZPI is concave shaped, with a shallower rim on the eastern and western entrances to the strait and a deeper centre. The seabed bathymetry across the ZPI region is highly variable; a steep nearshore profile (0 to 20 m water depth) extends to a less steep inner (20 to 60 m water depth) and moderate profile (60 to 120 m water depth), concluding with a flat outer shelf plain (greater than 120 m water depth) in the western part of the ZPI, and a steep slope into the Bass Canyon in the east (Black *et al.* 1991). The operational area lies between approximately 36-100 m water depth.

3.4 Biological and social environment

The operational area and ZPI supports a range of diverse benthic invertebrate fauna as well as a variety of vertebrate species such as fish, birds, seals and whales, including listed, endangered and vulnerable species.

3.4.1 Protected species

A total of 52 EPBC Act listed species were identified as potentially occurring within the wider ZPI, of which a subset of 45 were identified as potentially occurring within the operational area (Table 3-1).

Table 3-1 Threatened and migratory marine species under the EPBC Act potentially occurring within the operational area or ZPI

Species	Common Name	Status	Presence in operational area	Presence in ZPI
Marine mammals				
Balaenoptera bonaerensis	Antarctic Minke Whale, Dark-shoulder Minke Whale	Migratory	Not present	Species or species habitat likely to occur within area
Balaenoptera borealis	Sei Whale	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera edeni	Bryde's Whale	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Balaenoptera musculus	Blue Whale	Endangered / Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Balaenoptera physalus	Fin Whale	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Caperea marginata	Pygmy Right Whale	Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Eubalaena australis	Southern Right Whale	Endangered / Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Megaptera novaeangliae	Humpback Whale	Vulnerable / Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Orcinus orca	Killer Whale, Orca	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Physeter macrocephalus	Sperm Whale	Migratory	Not present	Species or species habitat may occur within area
Lagenorhynchus obscurus	Dusky Dolphin	Migratory	Species or species habitat may occur within area	Species or species habitat likely to occur within area
Marine reptiles				
Caretta caretta	Loggerhead Turtle	Endangered / Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Chelonia mydas	Green Turtle	Vulnerable / Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area
Dermochelys coriacea	Leatherback Turtle, Leathery Turtle,	Endangered / Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Eretmochelys imbricata	Hawksbill Turtle	Vulnerable / Migratory	Not present	Species or species habitat likely to occur within area
Fish, sharks and rays				

Species	Common Name	Status	Presence in operational area	Presence in ZPI
Prototroctes maraena	Australian Grayling	Vulnerable	Species or species habitat may occur within area	Species or species habitat likely to occur within area
Carcharias taurus (east coast population)	Grey Nurse Shark (east coast population)	Critically Endangered	Not present	Species or species habitat may occur within area
Carcharodon carcharias	White Shark, Great White Shark	Vulnerable / Migratory	Breeding known to occur within area	Breeding known to occur within area
Isurus oxyrinchus	Shortfin Mako, Mako Shark	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Lamna nasus	Porbeagle, Mackerel Shark	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Rhincodon typus	Whale Shark	Vulnerable / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Seabirds				
Actitis hypoleucos	Common Sandpiper	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Apus pacificus	Fork-tailed Swift	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Ardenna carneipes	Flesh-footed Shearwater, Fleshy-footed Shearwater	Migratory	Species or species habitat likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus	Australasian Bittern	Endangered	Not present	Species or species habitat known to occur within area
Calidris acuminata	Sharp-tailed Sandpiper	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Calidris canutus	Red Knot, Knot	Endangered / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Calidris ferruginea	Curlew Sandpiper	Critically Endangered / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Calidris melanotos	Pectoral Sandpiper	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Diomedea antipodensis	Antipodean Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni	Gibson's Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora	Southern Royal Albatross	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans	Wandering Albatross	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area

Species	Common Name	Status	Presence in operational area	Presence in ZPI
Diomedea sanfordi	Northern Royal Albatross	Endangered	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Fregetta grallaria grallaria	White-bellied Storm-Petrel (Tasman Sea), White- bellied Storm-Petrel (Australasian)	Vulnerable	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area
Halobaena caerulea	Blue Petrel	Vulnerable	Species or species habitat may occur within area	Species or species habitat may occur within area
Limosa lapponica	Bar-tailed Godwit	Migratory	Not present	Species or species habitat known to occur within area
Limosa lapponica baueri	Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit	Vulnerable / Migratory	Not present	Species or species habitat may occur within area
Limosa lapponica menzbieri	Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri)	Critically Endangered / Migratory	Not present	Species or species habitat may 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
Macronectes halli	Northern Giant Petrel	Vulnerable / Migratory	Species or species habitat may occur within area	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 may occur within area
Pachyptila turtur subantarctica	Fairy Prion (southern)	Vulnerable	Species or species habitat may occur within area	Species or species habitat known to occur within area
Pandion haliaetus	Osprey	Migratory	Species or species habitat may occur within area	Species or species habitat likely to occur within area
Phoebetria fusca	Sooty Albatross	Vulnerable / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Pterodroma leucoptera leucoptera	Gould's Petrel, Australian Gould's Petrel	Endangered	Species or species habitat may occur within area	Species or species habitat may occur within area
Sternula albifrons	Little Tern	Migratory	Not present	Species or species habitat may occur within area
Sternula nereis nereis	Australian Fairy Tern	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri	Buller's Albatross, Pacific Albatross	Vulnerable / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Thalassarche bulleri platei	Northern Buller's Albatross, Pacific Albatross	Vulnerable / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Thalassarche cauta	Tasmanian Shy Albatross	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area

Species	Common Name	Status	Presence in operational area	Presence in ZPI
Thalassarche cauta cauta	Shy Albatross, Tasmanian Shy Albatross	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta steadi	White-capped Albatross	Vulnerable / Migratory	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma	Grey-headed Albatross	Endangered / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Thalassarche eremita	Chatham Albatross	Endangered	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris	Black-browed Albatross	Vulnerable / Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area
Thalassarche salvini	Salvin's Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Foraging, feeding or related behaviour likely to occur within area

3.4.1.1 Marine mammals

A total of eleven marine mammal species (10 whales and 1 dolphin) were identified as listed threatened or migratory species under the EPBC Act and may inhabit or transit through the ZPI (DotE 2017). Of these, five species are listed as threatened species, namely the blue whale (Endangered), southern right whale (Endangered), the humpback whale (Vulnerable), the fin whale (Vulnerable) and the sei whale (Vulnerable). All of these species are also listed as migratory.

Blue whales generally migrate between warmer, lower latitude breeding grounds, where mating and calving takes place during winter months, and colder, higher latitude feeding grounds in the summer months (Commonwealth of Australia 2015). Areas of significance to the blue whale are feeding areas near the southern continental shelf, including the Bass Strait south of Victoria (DEH 2005b). Additionally, the biologically important areas (BIA's) for blue whales shows that the operational area and ZPI lie within their distribution and foraging range. Therefore blue whales are likely to occur in the operational area or ZPI during southern migration.

Southern right whales (*Eubalaena australis*) are seasonally present on the Australian coast between about May and November. The operational area and ZPI overlap or are in close proximity to the southern right whale BIAs for known core range and migration and resting on migration. While southern right whales prefer the south west coast of Australia, their occurrence in the ZPI is possible during southern migration.

Humpback whales (*Megaptera novaeangliae*) is listed as vulnerable due to their small population size following unsustainable historic whaling practices (TSSC 2015e). It is likely that the humpback whale will transit through the operational area or ZPI during its annual migration between summer feeding grounds in Antarctica and winter breeding grounds around the Great Barrier Reef, likely in small numbers. However, the nearest BIA for humpback whales (foraging) is about 150 km northeast of the ZPI.

Fin whales (*Balaenoptera physalus*) and Sei whale (*Balaenoptera borealis*) have been recorded in small numbers in the waters off Western Australia, South Australia, Victoria and Tasmania. There are currently no BIAs for fin and Sei whales. Based on low numbers of sightings, it is unlikely that significant populations of fin and Sei whales would be present around the operational area or ZPI at any time.

The Antarctic minke whale (*Balaenoptera bonaerensis*) and Bryde's whales have large distributions across Australian waters. The operational area and ZPI do not correspond with any known significant breeding or feeding grounds for these species, therefore these species are unlikely to be encountered or low numbers may transit through the operational area or ZPI on occasion.

In Australia, killer whales (*Orcinus orca*) have been recorded from all state waters and along the Australian continental shelf (Bannister et al. 1996). There is no BIA for killer whales; however, given their distribution range and sightings in the waters of Victoria, this species is likely to occur in the operational area and ZPI.

In Australia, sperm whales (*Physeter macrocephalus*) are most commonly found in deep waters (greater than 600 m) off the continental shelf of all Australian states (Bannister et al. 1996). There are no BIAs for sperm whales located near the ZPI. Due to their preference of deep waters, it is unlikely that sperm whales will occur in the operational area or ZPI.

Dusky dolphins are uncommon in Australian waters and are thought to be a primarily inshore species. Currently there is no BIA for the dusky dolphin and it is unlikely that it will occur within the operational area or ZPI.

BIAs for the following species overlap with the operational area and ZPI:

- Blue whale (distribution and foraging)
- Southern right whale (known core range and migration and resting on migration).

3.4.1.2 Marine reptiles

A total of four marine reptiles (turtles) were identified as listed threatened and migratory species under the EPBC Act and may inhabit or transit through the ZPI (DotE 2017). These species are the loggerhead turtle (Endangered/Migratory), green turtle (Vulnerable/Migratory), leatherback turtle (Endangered/Migratory) and hawksbill turtle (Vulnerable/Migratory). It is unlikely that significant numbers of marine turtles will be encountered during the activity given the water depths and lack of shallow submerged features, with the exception of the more pelagic leatherback turtle which may tranist through the operational area and ZPI.

No BIAs were identified as overlapping the operational area or ZPI for any marine turtle species.

3.4.1.3 Fish, sharks and rays

A total of six fish, sharks or rays (1 fish and 5 sharks) were identified as listed threatened or migratory species under the EPBC Act and may inhabit or transit through the ZPI (DotE 2017). Of these, four species are listed as threatened species, namely the Australian grayling (Vulnerable), grey nurse shark (Critically Endangered), white shark (Vulnerable/Migratory) and whale shark (Vulnerable/Migratory).

The distribution of white sharks includes the operational area and ZPI and seasonal aggregation of juvenile white sharks occurs in key areas along the Australian coast including Ninety Mile Beach in Victoria, adjacent to the operational area. For all other species, the operational area and ZPI do not represent significant habitat for these species and numbers encountered are expected to be low.

BIAs for the following species overlap with the operational area and ZPI:

- White shark (known distribution and breeding).

3.4.1.4 Seabirds

A total of thirty-eight seabirds or shorebirds were identified as listed threatened or migratory species under the EPBC Act and may inhabit or transit through the ZPI (DotE 2017). Of these, eight are non-threatened migratory species, with the remaining species and subspecies ranging from vulnerable to critically endangered. Pelagic seabirds have large natural ranges and it is therefore likely that low numbers of individuals will be encountered in the operational area and ZPI.

BIAs for the following species overlap with the operational area and ZPI:

- Antipodean albatross (foraging)
- Wandering albatross (foraging)
- Buller's albatross (foraging)
- Campbell albatross (foraging)
- Black-browed albatross (foraging)
- Shy Albatross (foraging likely)
- Southern giant petrel (foraging)
- Common diving petrel (foraging)
- White-faced storm petrel (foraging)

3.4.2 Habitats

Intertidal marine habitat

The ZPI is directly adjacent to a short section (< 20km) of Ninety Mile Beach between Glomar Beach and Paradise Beach. This shoreline is a high energy, open sandy beach.

Subtidal marine habitat

The water column is occupied by planktonic (drifting) and pelagic (actively swimming) species.

Soft sediment habitat is the dominant habitat within the operational area and ZPI. The benthic fauna present on the soft sediment can be broadly divided into two groupings:

- The epibenthos which includes sessile species such as sponges and bryozoans, hydroids, ascidians, poriferans and mobile fauna including hermit crabs, sea stars and octopus
- The infauna which includes a diverse range of species such as amphipods, shrimps, bivalves, tubeworms, small crustaceans, nematodes, nemerteans, seapens, polychaetes and molluscs (Parry et al., 1990).

Subtidal reefs occur either as extensions of intertidal rocky shores or as isolated offshore reefs. Isolated offshore reefs are likely to be present within the operational area and broader ZPI.

Shoreline habitat

No shoreline habitats occur in the operational area or ZPI.

3.5 Values and sensitivities

The following section outlines the values and sensitivities of the established and proposed Marine Protected Areas (MPAs) and other sensitive areas that overlap the wider ZPI that may be impacted by planned and unplanned survey activities.

No World Heritage Area, Ramsar sites, Commonwealth Marine Parks or State Managed Protected Areas overlap the operational area or ZPI.

One Key Ecological Feature (KEF), Upwelling East of Eden, occurs within the operational area and ZPI. The Upwelling East of Eden is designated a KEF for the high productivity and aggregations of marine life. The upwelling supports high primary productivity that supports higher trophic levels, including top order predators, marine mammals and seabirds.

3.6 Socio-economic and cultural

3.6.1 Cultural Heritage

European and/or indigenous sites of significance

The Gunai-Kurnai people hold native title over much of Gippsland, including 200 metres of offshore sea territory immediately north of the ZPI.

Shipwrecks

Fifteen shipwrecks occur within the operational area (DoEE, 2017).

3.6.2 Commercial fishing

3.6.2.1 Commonwealth and state fisheries

The majority of the commercial fishing (volume basis) occurs in Commonwealth waters along the continental shelf and the upper continental slope. Further details on Commonwealth and State fisheries intersecting the operational area and ZPI are provided in **Table 3-2**.

Table 3-2 Commonwealth and state fisheries potentially operating in the ZPI

Fishery	Does known fishing intersect operational area	Does known fishing intersect with ZPI
Commonwealth Fisheries		
Bass Strait Central Zone Scallop Fishery	No	Yes
Small Pelagic Fishery;	No	No - Fishing effort is concentrated in the near-shore Great Australian Bight (GAB) (west of Port Lincoln and Kangaroo Island) and Western Victoria. Eastern sub-area effort is concentrated in far southern NSW and Tasmania (2015-16 data).
Southern and Eastern Scalefish and Shark Fishery (SESSF) Commonwealth South East Trawl Sector; Commonwealth Gillnet and Shark Hook Sector	Yes	Yes
Southern Bluefin Tuna Fishery	No	No - Fishery effort concentrated in the GAB off Kangaroo Island and in southern NSW coast off the continental shelf.
Southern Jig Squid Fishery	No	No - fishing effort concentrated from Port Phillip Bay to Portland.
Victorian State Fisheries		
Rock Lobster Fishery	Yes	Yes
Abalone fishery	No	Yes - fishing may intersect the ZPI. Abalone diving generally occurs close to the shoreline generally to depths of 30 m on rocky reefs.
Giant crab fishery	Yes	Yes - but few fishing permits have been used.
Scallop fishery	Yes	Yes - may intersect ZPI depending on quota.
Wrasse fishery	Yes	Yes
Sea urchin fishery	Yes	Yes
Recreational fishing	Unlikely	Likely

3.6.3 Tourism and recreation

Tourism and recreational activities offered by the coastal areas of central and eastern Gippsland include (Tourism Victoria 2013):

- Recreational fishing among the Nooramunga islands, on the Gippsland Lakes, along Ninety Mile Beach, at Cape Conran Coastal Park and Croajingolong National Park and off the coast of Mallacoota.
- Swimming and surfing along the Gippsland coast.
- Scuba diving and snorkelling in Gippsland's Marine and Coastal Parks.

- Walking and hiking in Gippsland's National and Coastal Parks.

3.6.4 Commercial Shipping

Bass Strait is one of Australia's busiest shipping areas with more than 3,000 vessels passing through Bass Strait each year (Bass Strait is a transit route for shipping traffic connecting the eastern and western ports of Australia (NOO 2002). The Bass Strait area to be avoided (ATBA) is an area off the coast of Victoria described in Schedule 2 of the OPGGS Act. All of the operational area occurs within the ATBA. The ATBA excludes, without permission, entry of all ships over 200 t gross and restricts commercial vessel traffic to shipping channels to the east and south of the area.

3.6.5 Oil and gas industry

The Gippsland Basin has been producing hydrocarbons since 1969. Although a mature basin by comparison with other Australian basins, by world standards it is relatively unexplored. The Basin includes offshore production facilities (operational areas, monotowers and subsea completions), a pipeline network over 600 km; and various fields under exploration or development. The BassLink power cable between Victoria and Tasmania also traverses the operational area.

3.6.6 Defence

There are no defence activities within the operational area or ZPI.

4. Environmental risk assessment and management

The approach and methodology used within this Environment Plan are consistent with AS/NZS ISO 31000 Risk management – Principles and Guidelines and AS/NZS ISO 14001 Environmental Management Systems – Requirements with Guidance for Use.

The Environmental Aspects Guide (ExxonMobil 2012) describes the process used for comprehensive and rigorous identification and risk based assessment of environmental aspects. This involves five steps:

1. Identify and characterise environmental aspects
2. Characterise the environmental, social and regulatory setting
3. Identify project or operational alternatives
4. Develop risk scenarios
5. Assess significance.

4.1 Risk assessment methodology

Evaluation of the risk of an environmental aspect is based on a determination of consequence severity, combined with an estimate of probability or likelihood that the consequences could occur, given the implementation of both prevention and mitigation controls.

4.1.1 Identification of potential environmental impacts

An environmental risk assessment (ERA) of the survey program was conducted to determine the environmental risks associated with the survey, so controls could be identified to reduce the risks to the environment to As Low As Reasonably Practicable (ALARP). The consequence and probability/likelihood rankings are interpreted from the risk matrices provided in Sections 4.1.2 and 4.1.3.

Control prevention and mitigation measures have been developed from experience gained during previous geophysical and geotechnical surveys and from the experience of Esso in Bass Strait and other offshore surveys in Australia and around the world.

4.1.2 Determination of consequence severity

Environmental consequences are judged by the degree of adverse effects on receptors, e.g. flora, fauna, habitat etc. These effects may be due to routine emissions, spills/releases or other events or conditions that may affect the environment or its components.

Consequences can be evaluated in terms of the degree of the effects and the sensitivity of the environment. The Environmental Aspects Guide describes three effects dimensions (scale, duration, and intensity) (Table 4-1) and three environmental sensitivity dimensions (irreplaceability, vulnerability, and influence) (Table 4-2).

The determination of consequence severity involves evaluating each dimension as lower, moderate, or higher based on qualitative descriptions. Once each dimension is evaluated, results for effects and sensitivity are compared against interpretive criteria to define overall consequence severity (Table 4-3).

Table 4-1 Evaluation of environmental effect dimensions

Effect Dimension	Value	Description
Duration	Short-term (Lower)	Hours to days; effects highly transitory.

Effect Dimension	Value	Description
	Medium-term (Moderate)	Weeks to months. Trigger/cause is temporary; effects decline over time. For chemicals, consider persistence, breakdown product, and bioaccumulation potential in determining effects duration.
	Long-term (Higher)	Years; effects are ongoing. For chemicals, consider persistence or bioaccumulation potential in determining effects duration.
Size/Scale	Localised (Lower)	Within or near an operational site, facility, etc.; affecting an area similar to or smaller than a typical operational site (for small and/or mobile sources); effects are physically contained/controlled; not a significant portion of any sensitive area.
	Moderate	Affecting an area significantly larger than a typical operational site, facility, etc.; a significant portion of a habitat, watershed or single ecological area; a significant portion of the range or occurrence of a population of a species.
	Widespread (Higher)	Encompassing entire ecosystems, watersheds, or bioregions (landscape-scale); affecting most of the global range or occurrence of a species; having a noticeable impact on corporate-level environmental performance reporting.
Intensity	Minor (Lower)	Minor changes to wildlife, habitat, water occurrence/drainage, or vegetation; low density. For chemical effects: low concentration or hazard* potential.
	Moderate	Moderate or partial changes to habitat, water occurrence/flow, ground cover, ground stability, vegetation or wildlife. For chemicals, moderate concentrations, bioaccumulation or hazard* potential; sub-lethal, non-reproductive direct or indirect effects on organisms.
	Significant (Higher)	Notable changes to, fragmentation of, or elimination of habitat, water drainage/features, ground cover, ground stability, vegetation, and/or wildlife; for chemicals, high concentrations, bioaccumulation, or hazard*potential. Significant direct or indirect survival and/or reproductive effects on organisms.

** Chemical hazard generically includes radioactivity, reactivity, toxicity, carcinogenicity, mutagenicity, pathogenicity, reproductive effects potential, etc.*

Table 4-2 Evaluation of sensitivity dimensions

Sensitivity Dimension	Value	Description (applies to species, *ecosystem*, and/or *ecosystem* features/ functions/ services, all at same scale as Consequence)
Irreplaceability	Lower	Common, plentiful
	Moderate	Less common or plentiful, but not rare or unique
	Higher	Unique or rare
Vulnerability	Lower	Healthy, resilient, unthreatened, undamaged, or no remaining natural elements (such as some industrial settings)
	Moderate	Moderately resilient, existing stress or damage not significantly impairing function. Sustainable demand on resources/services
	Higher	Not resilient or capable of recovery, highly stressed, threatened and/or endangered, functions/ services failing (such as collapsing fishery)
Influence	Lower	Providing few or no services (supporting, regulating, provisioning, cultural)
	Moderate	Considered moderately important, providing a range of ecological, cultural, social, or commercial services for humans and biodiversity

Sensitivity Dimension	Value	Description (applies to species, *ecosystem*, and/or *ecosystem* features/ functions/ services, all at same scale as Consequence)
	Higher	Highly productive and/or bio diverse, critical for human well-being (such as subsistence), functions/services provide critical support for key human/biological communities (such as clean water), considered highly important by public

Table 4-3 Determination of environmental consequence severity

Consequence Level	Environmental Impact	Interpretative Examples of Environmental Consequence Dimension Considerations
I	Potential Widespread, Long Term, Significant Adverse Effects	Sensitivity averages higher; Effect averages higher
II	Potential Localised, Medium Term, Significant Adverse Effects	Sensitivity averages moderate or higher; Effect averages moderate or higher
III	Potential Short Term, Minor Adverse Effects	Sensitivity averages lower to moderate; Effect averages in the moderate range Sensitivity is lower, but Effect is above moderate Any Sensitivity with Effect averaging lower or mostly lower
IV	Inconsequential or No Adverse Effects	Sensitivity is lower; Effect averages in lower to moderate range

4.1.3 Determination of probability

Once the most severe consequences are identified, the probability of those consequences being realized is assessed. This is done by assessing the probability for each failure, event, or condition necessary to produce the consequences as documented in the risk scenario.

The probability of lower severity consequences is also evaluated to determine whether any have sufficiently higher probability to result in a higher risk.

The risk matrix reflects five categories of probability as shown in Table 4-4.

Table 4-4 Probability categories

Probability Range	Qualitative Interpretation Guidance	Quantitative Interpretation Guidance (Probability of occurring per year of exposure)
A	Very Likely - Similar event has occurred once or more at Site in the last 10 years - Has happened several times at Site or many times in Company	0.1 to 1 Mid-point at 0.3
B	Somewhat Likely - Has happened once before at Site or several times in Company	0.01 to 0.1 Mid-point at 0.03
C	Unlikely - Has not happened before at Site or has happened a few times in Company	0.001 to 0.01 Mid-point at 0.003
D	Very Unlikely	0.0001-0.001

	- Have been isolated occurrences in Company or has happened several times in industry	Mid-point at 0.0003
E	Very Highly Unlikely - Has happened once or not at all in Company - Has happened a few times or not at all in industry	<0.0001

4.1.4 Risk matrix

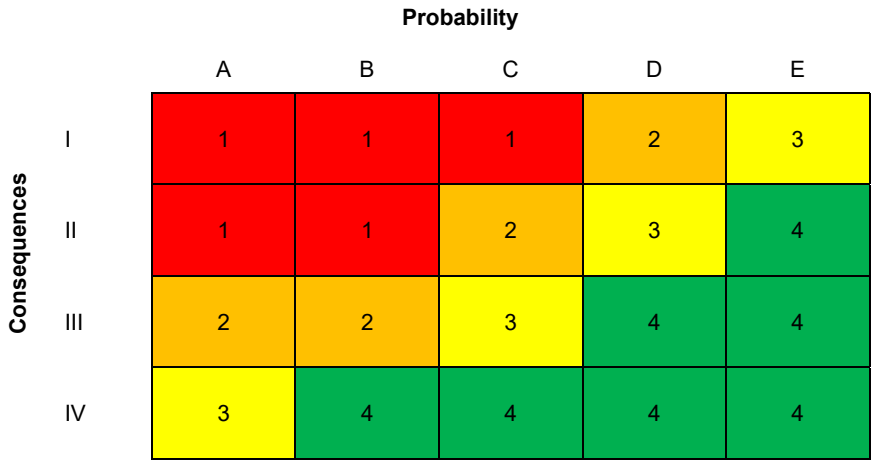

Figure 4-1 Risk matrix

Note: Numbers on the risk matrix correspond to the risk categories.

4.1.5 Demonstration of ALARP

The Risk Matrix (*Risk Matrix Application Guide*, ExxonMobil 2012) shown in Figure 4-1 has four consequence categories (I through IV) and five probability categories (A through E). It is the combination of consequence severity and probability of occurrence that determines the position on the Risk Matrix.

Risk evaluation involves ranking the risks i.e. determining if the risk of an activity or event is acceptably low, or if management actions are required to reduce risk to ALARP. Risks are identified, consistently categorized, and eliminated, mitigated, or otherwise managed.

The Risk Matrix is divided into four risk categories. The significance of each Risk Category is as follows:

Category 1: A higher risk where specific controls should be established in the short term and should, when possible, be reduced to a Category 2 risk or below. Continued operation requires annual review and approval by the Production Manager or equivalent.

Category 2: A medium risk that should be reduced unless it is not "reasonably practicable" to do so.

Category 3: A medium risk that should be reduced if "lower cost" options exist to do so.

Note: "Lower cost" denotes follow-up work that can be completed without a) allocating extensive engineering, technical, and operations manpower or b) the need for unit shutdowns or activities which may introduce other risks or use resources that may be more appropriately used to address higher risk category items.

Category 4: A lower risk that is expected to be effectively managed in base OIMS practices and therefore typically requires "No Further Action." Risk mitigation measures that are in place to manage the risk to Category 4 should be continued.

Environmental risks described in this Environment Plan have been assessed as Category 3 and Category 4 risks.

Determining whether risks have been reduced to ALARP requires an understanding of the nature and cause of the risk to be avoided and the sacrifice (in terms of impact on personal safety and/or the environment, time, effort and cost) involved in avoiding that risk. Where the nature of a risk is well-understood, in the context of the receiving environment, and the activity is a well-established practice, the application of control measures specific to systems and specified in international standards or design codes may be sufficient and obvious to demonstrate that the risk is ALARP. For complex situations it may be difficult to reach a decision on the basis of 'good practice' or standards alone. Therefore for each risk, a discussion on ALARP demonstration has been provided which considers elimination of the activity, availability of practical alternatives where they exist, and the decision to rule out adoption of additional control measures (where they exist) because they involve grossly disproportionate sacrifices to the resultant reduction in risk.

A risk is considered to be reduced to ALARP when the following criteria are met:

- There are no additional reasonably practicable measures available to further reduce the risk, and
- There are no reasonably practicable alternatives to the activity, and
- The 'cost' of implementing further measures is grossly disproportionate to the reduction in risk.

These factors are used to demonstrate ALARP.

4.1.6 Demonstration of acceptable level

The environmental impact and risk is considered to be reduced to acceptable levels if:

- The level of residual environmental risk was assessed as being as low as reasonably practicable (ALARP; per Section 4.1.5), and
- The level of residual environmental risk associated with the activity was either Category 2, 3 or 4, and
- The activity is commonplace in current offshore practice (i.e. benchmarked), and is compliant with current industry/Esso policy and standards, and Australian legislation, and
- Valid claims or objections to the risk from relevant persons or stakeholders, if any, are considered.

4.2 Hazards, Potential Impacts and Control Measures

A summary of the environmental hazards, impacts, risk ranking and control measures is provided in Table 4-5.

Table 4-5 Summary of hazards, impacts, risk ranking and control measures

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
Vessel Presence and Operations							
Underwater noise from geophysical sources affecting marine fauna or cetacean behaviour	Generally elevated underwater noise can affect marine organisms in three main ways (Richardson et al. 1995; Simmonds et al. 2004): • By causing direct physical effects on hearing or other organs (injury) • By marking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey) • Through disturbance leading to behavioural changes or displacement of animals from important areas. The response of marine fauna to marine noise will range from no effect to various behavioural changes and in some cases physical impacts (McCauley, 1994). Physical effects can occur but only likely at a very short range and high sound intensities which are unlikely to occur in the majority of fish and marine mammal species are most free-swimming species will display avoidance behaviour well before they get within the range at which physical effects may occur. *Marine mammals* All proposed geophysical sources are below the 230 dB re 1 µPa (peak) non-recoverable permanent hearing loss (Permanent Threshold Shift (PTS) threshold) recommended by Southall et al. (2007). The operational	D	III	4	• A 500 m shutdown zone will be maintained around the SBP, SSS and MBES consistent with EPBC Act Policy Statement 2.1.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	area contains no feeding, breeding or resting areas, therefore any behavioural response or avoidance behaviour is limited to individuals transiting the area. Given the short duration of the survey program and the low numbers of whales transiting the area, potential impacts to whales are likely to be short term and minor. *Marine turtles* Marine turtles have an auditory bandwidth of 100–800 Hz, with the greatest sensitivity between 200–400 Hz (adults) and 600–700 Hz (juveniles) (Ketten & Bartol, 2005). There are no marine turtle BIAs, nesting beaches or foraging areas within the operational area or ZPI. The presence of turtles is likely to be limited to a few individuals transiting the area. Given the short duration of the survey program and the low numbers of turtles transiting the area, potential impacts are likely to be short term and minor. *Fish and Sharks* It is expected that the potential effects to fish and sharks will result in minor and temporary behavioural change (such as avoidance). Given the short duration of the surveys at any given location, any short term behavioural impacts occurring as a result of the activity are unlikely to be significant at the population level.						
Underwater noise from vessels affecting marine fauna or cetacean behaviour	Potential impacts are similar to those described above. *Marine mammals* Underwater noise levels from a range of vessels including DP vessels have been measured at 164-182 dB re 1 µPa at 1 m (RMS SPL) (McCauley 1998). The	D	IV	4	• All survey vessels to comply with EPBC Regulations 2000-Part 8 Division 8.1 (interacting with cetaceans). • Vessels are required to have valid documentation including:	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	sound source intensity from a USBL system is typically 190-205 dB re 1 µPA. These sounds levels are within the 120 to 180 dB re 1µ (SPL) range required before the onset of behavioural disturbance (Southall et al. 2007) but well below the well below proposed injury criteria for low frequency cetaceans (estimated at 230 dB re 1 µPa) (Southall et al., 2007). The operational area contains no feeding, breeding or resting areas, therefore any behavioural response or avoidance behaviour is limited to individuals transiting the area. Given the short duration of the survey program and the low numbers of whales transiting the area, potential impacts to whales are likely to be short term and minor. *Marine turtles* Marine turtles have an auditory bandwidth of 100–800 Hz, with the greatest sensitivity between 200–400 Hz (adults) and 600–700 Hz (juveniles) (Ketten & Bartol, 2005). This frequency does not overlap with the broadband low frequency noise generated by thruster and USBL use, therefore, turtles are not likely to be significantly affected by underwater noise associated with survey vessels. *Fish* Given the short duration, intermittent nature and relatively low intensity of noise associated with survey vessels, impacts from underwater noise (if any) are likely to consist of short term behavioural disturbance.				o An Oil Companies International Marine Forum (OCIMF) Offshore Vessel Inspection Database (OVID) or equivalent. • OIMS System 8-1 (Evaluating, Selecting and Monitoring Third Parties) ensures vessels have an inspection maintenance and repair program.		
Fuel combustion equipment on vessel	Fuel combustion has the potential to result in localised, temporary reduction in air quality. Potential impacts	B	IV	4	• OIMS System 8-1 (Evaluating, Selecting and Monitoring Third Parties) ensures vessel contractors comply with Marine Order 97.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	include a localised reduction in air quality, and contribution to greenhouse gas emissions. Due to the highly dispersive nature of the offshore environment, air emissions are not expected to affect local air quality. The greenhouse gases contribution as a result of air emissions will also be low due to the short duration of the survey program. The potential environmental impact as a result of air emissions will be short term and minor.						
Discharge of sewage waste to the marine environment.	Discharge of sewage, putrescible waste and grey water may temporarily increase nutrient availability and biological oxygen demand (BOD) over a localised area, potentially impacting aquatic organisms and stimulating growth for some plankton organisms. In the open oceanic environment, the effect of the effluent BOD on seawater oxygen concentrations is expected to be insignificant (Black et al., 1994). Given the short duration of the survey, routine discharge of sewage, putrescible waste and grey water to the ocean will cause a negligible and localised increase in nutrient concentrations which will be insignificant in comparison to the natural daily nutrient flux that occurs within the region. Therefore potential environmental impact associated with sewage and grey water discharge is expected to be inconsequential.	D	IV	4	• Vessel contractors will comply with the requirements of Marine Order 95. • Vessel contractors will comply with the requirements of Marine Order 96 (Marine pollution prevention-sewage) 2013.	✓	✓
Discharge of oily water to the marine environment	The oil in bilge water can potentially harm fish and other species that reside in the water column such as plankton.	D	IV	4	• Vessel contractors will treat bilge to an oil-in-water concentration of 15 ppm prior to discharge in accordance with Marine Order 91 (Marine Pollution Prevention- Oils).	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	The intermittent discharge of oily water at 15ppm to the marine environment may result in temporary, localised increases in oil content of marine waters immediately surrounding the vessel discharge point. Given these oily water discharges will occur at intermittent periods during the survey period; the small volumes involved; the constant vessel movement; and the assimilative/dispersive nature of the receiving environment, it is considered very unlikely that this discharge will impact water quality to the extent that toxic impacts to marine fauna will occur.				• If the oil in water (OIW) concentration exceeds this limit, the overboard discharge stops, an alarm is initiated and the contaminated water is automatically returned for retreatment. • Vessels will have suitable spill kits in accessible locations on board to be used immediately in the event of a chemical/ hydrocarbon spill.		
Discharge of hydrocarbon and/or chemical contaminated deck drainage into marine environment.	Chemicals and other contaminants that are present in the drainage water can potentially harm fish and other species that reside in the water column such as plankton. The collection and treatment system for deck drainage prevent contaminated deck drainage from being discharged directly overboard. However, during wash-down events it is possible that minor diluted quantities of oil and grease, mud and chemicals may be discharged. Minor quantities of chemicals, oil and grease may also be released overboard during a spill on the deck. Due to the low volume of contaminants that may be discharged and the high dilution rates expected in the open water environment and the low number sensitive receptors known to occur in the operational area, the discharge is anticipated to have little or no impact on the receiving environment.	D	IV	4	• Vessels have scupper plugs fitted for use in overboard drains.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
Interference with other marine users	*Commercial fishing* Five fisheries are considered to be currently active in the vicinity of the operational area. The presence of the survey vessel has the potential to cause some disruption to fishing activities within the survey area for a period of approximately 20 days for the geophysical surveys and up to 40 days for the geotechnical surveys. As most of the survey areas are in proximity to existing structures where exclusion zone apply and the proposed survey areas are limited in area, the potential for survey activities to overlap with commercial fishing activities is limited and therefore spatial conflict with fisheries is expected to be minor. The operational area is also located inside the ATBA which is likely to reduce the number of commercial fishing vessels entering the operational area. Given the low numbers of commercial fisheries operating in the area, the risk of interference is considered low. *Recreational fishing* Recreational fishing is concentrated inside the Gippsland Lakes or along the Ninety Mile Beach coastline. Recreational fishing in the Bass Strait is generally low and therefore the risk of interference with recreational anglers is also considered low. *Shipping* The Gippsland basin area carries significant shipping activity and shipping volumes. The operational area lies within the ATBA and exclusion zones are also applied	D	IV	4	• Consultation was undertaken with key stakeholders during the development of the EP • Key stakeholders will be kept updated with project timeframes • Vessel contractors will comply with Marine Order 30 (Prevention of Collisions) 2009 (which requires vessels to be visible at all times) to prevent unplanned interaction with marine users. • Vessel contractors will comply with Marine Order 21 (Safety of navigation and emergency procedures) 2012 to prevent unplanned interaction with marine users. • In order to prevent activities interfering with other marine users, AMSA JRCC will be notified of the activity • AHS will be notified prior to commencement of activity.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	around all the operational platforms, reducing interference to shipping vessels *Defence* There are no defence activities within the operational area.						
Drilling, Coring and Sediment Sampling							
Discharge of drill cuttings and fluids to the sea.	The seabed in the operational area will be subject to localised physical disturbance during the survey. The area of the seabed to be disturbed at each sampling site is limited to the footprint of the cores/samples taken. Holes generated in the seabed as a result of geotechnical survey activities will eventually collapse and infill. Impacts to the seabed as a result of survey activities are expected to be short term and minor. *Drill cuttings* The geotechnical seabed coring will result in the indirect discharge of less than 15m³ of drill cuttings at the seafloor. Cuttings are likely to range in size from very fine to very coarse particles. Finer particles will be temporarily suspended in the water column (close to the seafloor) before settling onto the sea floor in the immediate vicinity of the drilling location. Given the short duration of the survey and that seabed sediments and infauna are widespread throughout the Gippsland Basin environmental impacts associated with the discharge of drill cuttings are expected to be minor and short term. *Drill fluids*	D	IV	4	• Only low toxicity chemicals, as assessed against international standards, such as OCNS (Offshore Chemical Notification Scheme) Group D or E will be used.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	To stabilise the boreholes non-toxic, chemically inert water based mud (WBM) will be used. A number of reviews have been carried out to identify common drilling mud additives, application concentrations and toxicities (e.g. Hinwood et al. 1994). Based on such reviews, WBMs can be considered to be very low toxicity (OCNS Group E) and chemically inert and are expected to dilute rapidly upon discharge, as such no toxic effects to biota are expected to occur						
Unplanned Events							
Introduction of marine pest species through hull fouling or ballast water discharge.	Non-endemic marine species transported into areas where they have not previously been found can displace native species, or interfere with ecosystem processes in other ways (e.g. through predation). The successful establishment of an exotic species transported via either ballast or hull-fouling depends primarily on three factors: • Colonisation and establishment of the marine pest on a vector • Survival of the marine pests on the vector during the voyage from the donor to the recipient region • Colonisation of the recipient region by the marine pest. Vessels will adhere to the Department of Agriculture and Water Resources requirements in relation to ballast water management, hull cleaning and treatment of survey vessels.	D	IV	4	• All survey vessels to be subject to an invasive marine species (IMS) risk assessment prior to contracting • Ballast water will be managed in accordance with Australian Ballast Water Requirements-Version 7 (Department of Agriculture and Water Resources 2017) including: o All vessels designed to carry ballast water are required to carry a valid ballast water management plan (BWMP) and ballast water management certificate o All vessels are required to submit a ballast water report o Ballast water exchange should be conducted in areas at least 12 nm from the nearest land and in water at least 50 m deep. • All vessels to have an anti-fouling coating that complies with the requirements of Annex 1 of the	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	On the basis that ballast water management, hull cleaning and treatment of the vessel occurs in accordance with the Department of Agriculture and Water Resources requirements, the risk of introduction and establishment of marine pest species is considered low.				International Convention on the Control of Harmful Anti-Fouling Systems on Ships • Anti-fouling records will be maintained on board survey vessels in accordance with Appendix 2 of the International Maritime Organisation's Guidelines for the Control and Management of Ships' Biofouling to Minimise the Transfer of Invasive Aquatic Species, which include details of anti-fouling coating used, dates and locations of cleaning, dry docking, anti-fouling applications, date and locations of in-water inspections.		
Unplanned collision with marine fauna	Vessel collision with marine fauna can lead to injury or mortality of sensitive marine species. Although foraging blue whales may occur, the operational area is not recognised as a significant foraging aggregation. As such, their presence is expected to be transient and occasional and therefore impacts to cetaceans are considered to be low. Cetaceans tend to practice avoidance around vessels and therefore the likelihood of a vessel striking a cetacean is low. There have been no reported incidents of cetacean strikes in the period 2008 to 2013 across all Esso's Bass Strait operational areas. Vanderlaan and Taggart (2007) found that 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. Survey vessels within the operational area are likely to be travelling less than 8 knots, therefore, the chance of a vessel collision with a protected species resulting in lethal effects is reduced.	B	IV	4	• Project vessels will comply with EPBC Regulations 2000 - Part 8 Division 8.1 (Interacting with cetaceans), including: o A vessel will not travel greater than 6 knots within 300 m of a whale (caution zone) and not approach closer than 100 m from a whale o A vessel will not approach closer than 50 m for a dolphin and/or 100 m for a whale (with the exception of animals bow riding). • Grills or guards fitted to side thrusters of vessels.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
Seabed disturbance resulting from dropped objects	In the unlikely event of an accidental loss of geotechnical equipment potential environmental effects will be limited to localised physical impacts on benthic communities arising from equipment sinking to, and dragging across the seabed. Dragging of equipment along the seabed may result in localised physical disturbance. However, given the water depth range within the operational area (36-100 m), the absence of any shallow waters (<20 m water depth) and any emergent features within or immediately adjacent to the operational area, and the size/weight of the geotechnical equipment being used during the survey, the risk of significant impacts resulting from equipment loss is considered to be low.	C	IV	4	• Lifting gear will be appropriately maintained. • Vessel inductions will include training for crew in dropped object prevention.	✓	✓
Unplanned release of hazardous or non-hazardous waste to the marine environment	Potential impacts of accidental solid waste discharge to sea include potential physical harm to marine fauna resulting from ingestion or entanglement with solid waste (garbage). If accidentally lost overboard, hazardous waste would result in a temporary and highly localised hazardous water quality zone. This could have a toxic effect on marine fauna that are present within this zone. The exposure and toxicity would be highly temporary due to rapid dilution and dissipation expected in the open water marine environment of the operational area. Potential impacts are likely to be limited to one or a few individual marine animals in the immediate vicinity of the accidental release site, with the most likely fauna affected those within the surface waters.	D	IV	4	• Vessel contractors will comply with Marine Order 95: o Waste will be managed in accordance with the vessel Garbage Management Plan. o A garbage record book will be maintained with details of non-hazardous and hazardous waste volumes generated and transferred for onshore recycling or disposal. • Vessel inductions will include notification for personnel on correct waste management procedures. • Waste will be stored securely in clearly marked containers. • All hazardous wastes and chemicals will be stored in a bunded area capable of containing leakage or spillage, prior to onshore disposal	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
					• Material Safety Data Sheets (MSDS) are present on board for each hazardous chemical. • Esso's corrective and preventative action processes will be implemented in the event of release of solid or hazardous waste to the marine environment. • OIMS System 8-1 (Evaluating, Selecting and Monitoring Third Parties) ensures vessel contractors have trained and qualified Vessel Masters;		
Unplanned loss of containment of MDO or hydraulic or lubricating oil to the marine environment	The credible hazards associated with fuel and oil spills during the proposed survey program (that are considered most credible) are: • On-deck leak or spill of small quantifies (up to 50 litres) of hydraulic oil or lubricating oil • Larger volume (up to 144 m^3) loss of MDO from a ruptured fuel storage tanks, resulting from vessel collision. In the unlikely event of a 144 m^3 surface release of MDO, no shoreline contact was predicted; only open waters where transient fauna may traverse. Impacts to transient marine fauna within the vicinity of the spill include the potential to impact air breathing animals such as cetaceans and turtles due to of inhalation of vapours if they surface in the diesel slick. Seabirds have also been identified as at risk if they contact the diesel slick by oiling their feathers leading to loss of buoyancy and the potential for hypothermia. However the rapid rates of evaporation will limit exposure to transient animals and limit the extent of potential impacts.	E	II	4	• OIMS System 8-1 (Evaluating, Selecting and Monitoring Third Parties) ensures vessels will have a Shipboard Oil Pollution Emergency Plan (SOPEP) that will be implemented in the event of a MDO spill. The SOPEP is the response that will be implemented immediately by the vessel crew • OIMS System 10-2 (Emergency Preparedness and Response) ensures effective emergency preparedness and response plans are in place, which provide for well-maintained equipment and trained personnel. • OIMS System 6-2 (Facility Integrity Management) ensures oil spill response equipment is appropriately maintained. • The trained and qualified Vessel Master will implement the SOPEP in the event of a spill.	✓	✓

Hazard/ Aspect	Potential impacts	Probability	Consequence	Residual risk	Control measures	ALARP	Acceptable
	Impacts to socioeconomic receptors will be exclusion from the area impacted by the spill, and is likely to be temporary.						
Implementation of oil spill response	Spill response strategies for the worst case credible spill scenario (144 m^3 MDO spill) were evaluated via Net Environmental Benefit Analysis (NEBA). In the actual event of a spill, the NEBA is revisited regularly as more information becomes available on actual conditions, spill trajectory path and locations of sensitive receptors. This review process allows response strategies to be adjusted to provide optimal results. A conceptual NEBA was conducted based on oil spill modelling resulting in potential implementation of two response strategies. *Monitor and Evaluate* There are a number of generic impacts that may arise from vessel and aircraft operation used to monitor and evaluate. Impacts such as liquid discharges, emissions, vessel movements, anchoring (disturbance to sensitive seabed features) and translocation of marine pest are described above. *Source control* Source control activities such as cargo transfer and vessel trimming will reduce the volume of oil released to the marine environment. Consequently these response strategies will not create additional impacts on the marine environment over and above the spill itself.	D	IV	4	• In the event of a spill, the Vessel Master will implement available controls and resources of the SOPEP • Vessel Master will undertake initial reporting as per SOPEP and immediate reporting to Esso • Oil spill response equipment will be appropriately maintained • Emergency preparedness and response plans will be in place to implement response strategies commensurate to the size and location of the spill • Monitor and evaluate response activities will be activated in the appropriate timeframes • Monitor and evaluate response activities will be terminated when response is complete.	✓	✓

5. Implementation strategy

The Implementation Strategy identifies systems, practices and procedures to be used to ensure that the environmental impacts and risks of the activity are reduced to ALARP and acceptable levels, and that the environmental performance outcomes and standards in the EP are met.

5.1 Operations Integrity Management System (OIMS)

Esso is committed to conducting business in a manner that is compatible with the environmental and economic needs of the communities in which it operates, and that protects the safety, security, and health of its employees, those involved with its operations, its customers, and the public. These commitments are documented in the Safety, Security, Health, Environmental, and Product Safety policies.

These policies are put into practice through a management system called the OIMS. Esso's OIMS Framework establishes common worldwide expectations for addressing risks inherent in the business. The term Operations Integrity (OI) is used by Esso to address all aspects of its business that can impact personnel and process safety, security, health and environmental performance.

All OIMS management systems contribute to the effective management of the identified environmental risks and impacts in the Gippsland Basin Geophysical and Geotechnical Investigations EP.

5.2 Ongoing Monitoring and Performance Review

Measurement and recording of emissions and discharges to the sea, to air and waste to land are completed under OIMS System 6-5 Environmental Management. The process for managing environmental monitoring records is addressed through OIMS System 4-1 Information Management.

5.2.1 Routine environmental monitoring

Table 5-1 summarises the program for monitoring of emissions and discharges associated with the activities in the EP.

Table 5-1 Environmental monitoring summary

Activity	Criteria to be Monitored	Frequency	Responsibility
Noise from vessel and acoustic sources	Cetaceans, turtle and shark sightings	Ongoing	Vessel Crew and Vessel Master
Vessel Movements	Vessel-marine fauna interactions	Ongoing	Vessel Crew and Vessel Master
Drilling and Coring Operations	Volume/quantities of constituents used for drilling	Ongoing	Offshore Survey Manager/Geotechnical Lead
	Total number of boreholes drilled and location	Ongoing	Offshore Survey Manager/Geotechnical Lead
Fuel consumption	Greenhouse gas emissions	Ongoing	Vessel Master
Sewage Disposal	Quantities of waste discharge overboard	Ongoing	Vessel Master
Bilge Discharge	Discharges from oily water system (volume)	Ongoing	Vessel Master
Disposal of Solid Waste	Quantities of waste transferred to shore	Ongoing	Vessel Master

5.3 Auditing, assessments, investigations and inspections

The collection of data from audits, inspections and exercises will form the basis of demonstration that the environmental performance outcomes, standards and measurement criteria are being met, that specified mitigation measures are in place to manage environmental risks, and that they remain working, and contribute to continually reducing risks and impacts to ALARP.

5.3.1 Pre-mobilisation compliance audit

Esso will undertake a pre-mobilisation compliance audit against the performance outcomes, standards and measurement criteria identified in the EP that are applicable prior to the commencement of survey.

Findings and recommendations of the audit will be documented and provided to the Esso Survey Manager who in turn are responsible for communicating this information to the Vessel Master and crew.

5.3.2 OIMS review

Esso will undertake a pre-survey audit against the OIMS bridging document to ensure that the vessel based activities are compliant with OIMS requirements.

5.3.2.1 Contractor OIMS assessments

The contractor SSHE pre-qualification process is detailed in OIMS System 8-1 Evaluating, Selecting and Monitoring Third Parties. The Third Party Services Management Manual evaluates and verifies a contractor's capability and willingness to meet Esso's SSHE expectations through either document review or site assessment (or both). The SSHE group participate in the pre-qualification screening and bid evaluation process including contractor site assessments, if required.

5.4 Environmental performance review

5.4.1 Toolbox meetings

Toolbox meetings are conducted twice daily to plan for any events that are occurring during the shift. This allows for relevant permits and Job Safety Analyses to be undertaken and to make sure that personnel completing the tasks understand all the safety and environmental risks associated.

5.4.2 Monthly reviews

A review of the contractor's environmental performance, via the monthly compliance reporting, will be undertaken by Esso to confirm any deficiencies in their systems.

5.4.3 Completion of Activity

Esso and its contractor will review environmental performance upon completion of the activity. The results of the review and any identified improvements or recommendations will be incorporated into processes and procedures for future surveys to help facilitate continuous improvement.

5.4.4 Incident notification and reporting

The OPGGS (Environment) Regulations define reportable incidents and recordable incidents and also set up reporting requirements for each type of incident. The reporting requirements under the Regulations are managed under OIMS System 4-2 Compliance with Laws Regulations and Permits.

Incidents are managed internally in accordance with OIMS System 9-1 Incident Management to ensure valuable information and lessons learned are available to improve operations and prevent the recurrence of similar incidents.

OIMS System 9-1 requires that:

- The incident is reported in the IMPACT incident database and for equipment related incidents, in the FIMS database
- A formal investigation occurs, if triggered by our evaluation of actual or potential incident severity
- The incident is correctly documented, lessons learned are communicated, and corrective actions are followed up and tracked in the IMPACT incident database.

5.5 Revisions of the Environment Plan

Under Regulation 8(1) of the Environment Regulations, it is an offence for a titleholder to continue if a new impact or risk, or increase in the impact or risk, is not provided for in the EP in force.

Subsequently, Esso shall undertake an internal assessment to determine whether there is a significant new environmental impact or risk, or significant increase in an existing environmental impact or risk that is not provided for in the EP. This will be conducted in line with NOPSEMA guideline N04750-GL1705.

If a significant new or increased impact or risk is identified and it is not already appropriately covered under the EP, as required under Reg. 17(6), Esso will submit a proposed revision to the EP. Esso/Vessel Contractor shall determine at the time of the assessment, whether a risk or impact is considered 'significant' based on information available at that time.

6. Oil Pollution Emergency Plan

An Oil Pollution Emergency Plan (OPEP) forms part of this EP which describes the arrangements Esso Australia Pty Ltd (Esso) has in place to respond to an oil pollution incident should it occur during the Gippsland Basin geotechnical and geophysical survey campaign.

6.1 Division of Responsibility for a Vessel Spill

The division or responsibility in the event of a vessel spill from the geophysical and geotechnical survey is summarised in Table 6-1 . AMSA will assume the Combat Agency role. As the Titleholder, Esso will support the Combat Agency through the provision of resources to implement control measures. Esso is also responsible for monitoring of impacts to the environment of oil pollution and response activities.

Table 6-1: Definitions of Roles

Organisation	Role
AMSA	The Australian Maritime Safety Authority (AMSA) is responsible for the control of incidents in offshore areas involving ships whenever the Navigation Act 1912 (the Navigation Act) applies. This is regardless of whether ships are conducting an offshore petroleum activity under the OPGSS Act or not.
DEDJTR	In the event that an incident in Commonwealth waters has impacted on state waters, DEDJTR may assume Incident Control over the impacted area in state waters.
Esso	As Titleholder, Esso shall support the Combat Agency through the provision of resources to implement control measures. Esso is also responsible for monitoring of impacts to the environment of oil pollution and response activities.

6.2 Monitoring and Surveillance

Oil spill monitoring, evaluation and surveillance (MES) is essential for anticipating resources at risk, directing the response and evaluating the effectiveness of response techniques. Initially surveillance will be undertaken by the most convenient and efficient methods possible with the immediately available resources. An ongoing surveillance plan will be established as part of the Incident Action Plan (IAP).

Surveillance and tracking of slicks will be conducted by one or a combination of the following means:

- **Visual observations** and photography, primarily from aircraft (Esso operated or contracted helicopters and local fixed wing aircraft contractors as identified in Appendix A - Contacts List of the OPEP).
- **Satellite tracking** buoys and remote sensing technologies to identify and monitor the location of the oil.
- **Spill trajectory Modelling**: Calculating and forecasting the movement of slicks using hand calculations or oil spill trajectory models (using internal resources or RPS Asia-Pacific Applied Science Associates (RPS APASA) sourced via AMOSC/AMSA (Appendix C of the OPEP).

- **Sampling**: Collecting water samples and using water quality monitoring to test predictions and provide information for determining the fate and behaviour and, thus, the potential environmental impact of the spilt oil.
- **Remote Sensing** (RS) – uses remote sensing technologies to identify oil slicks.

6.3 Spill Response

The selection of response options and the verification of assumptions made in the planning phase should begin as soon as the response is initiated. Like all aspects of emergency management and incident command, the response should be scaled to the size and complexity of the incident.

In selecting a suitable response option, the first step is for the IMT to evaluate the situation and verify decisions made in the planning phase. If the planning phase assumptions are valid then the strategic response can be activated as per the plan, however, if it differs then the implications should be reviewed, and appropriate changes made.

High level strategic objectives are set for the response. Options are then evaluated for their effectiveness and feasibility. NEBA is carried out to ensure that the selected responses provide a net environmental benefit. Following this and assuming certain criteria are met, the Incident Action Plan can be prepared.

- Spill response strategies for the worst case credible spill scenario were evaluated by means of a strategic Net Environmental Benefit Analysis (NEBA). NEBA is the process of considering the risk and benefits of different spill response options (including no response) and comparing them to identify a spill response decision resulting in the lowest overall environmental and socioeconomic impacts. In the actual event of a spill, the NEBA is revisited regularly as more information becomes available on actual conditions, spill trajectory path and locations of sensitive receptors. This review process allows response strategies to be adjusted to provide optimal results.
- The results are presented in Table 6-2 and will guide the initial response by the IMT and ERT upon activation and mobilisation. If the Incident Action Planning (IAP) cycle commences for a protracted response, an operational NEBA will be conducted regularly using surveillance information to inform response option decision-making.

- **Table 6-2: Conceptual NEBA**

Response Strategy		MDO Spill		Response Strategy Carried Forward (Yes/No)
		Positive Impacts	Negative Impacts	
Monitor and Evaluate (Type I Monitoring)	Satellite Imagery Tracking Buoys Aerial Observations Vessel Observations Spill Modelling Fauna Observations	Surveillance actions are used to monitor and evaluate the dispersion of the spilled hydrocarbon, and to identify and report on any potential impacts to flora and fauna that may occur while the spill disperses. Surveillance results may also be used to assist in escalating or de-escalating response strategies as required. Improved situational awareness will improve the effectiveness of a response decreasing risk to the environment.	There are a number of generic impacts that may arise from vessel and aircraft operation. Impacts such as liquid discharges, emissions, vessel movements, anchoring (disturbance to sensitive seabed features) and translocation of marine pest are described throughout this EP.	**Yes**
Surface Dispersants		Diesel is not considered a persistent hydrocarbon, and has high natural dispersion rates in the marine environment. Chemical dispersant application is not recommended as a beneficial option for diesel as it has a low probability of increasing the dispersal rate of the spill while introducing more chemicals to the marine environment.		**No**
Subsea Dispersants		Not a feasible response to a surface diesel spill.		**No**
Containment and Recovery		Given the fast spreading nature of diesel causing the slick to break up and disperse, this response is not considered to be effective in reducing the net environmental impacts of an diesel spill. The ability to contain and recover spreading diesel on the ocean water surface is extremely limited due the very low viscosity of the fuel.		**No**
Shoreline Cleanup		No shoreline contact is predicted from a diesel spill.		**No**
Protection and Deflection		No shoreline contact is predicted from a diesel spill.		**No**
Oiled Wildlife		May decrease the chance of wildlife coming into contact with the diesel and or improve the chance of survival if they come in contact with the oil.	Undertaking this activity has the potential to result in more harm if poorly executed (i.e. drive marine animals into spill or split up the pods, schools, and flocks resulting in further stresses). Hazing involves the use of visual, auditory or sensory deterrents to keep healthy marine fauna away from the oil. This can lead to the	**No**

Response Strategy	MDO Spill		Response Strategy Carried Forward (Yes/No)
	Positive Impacts	Negative Impacts	
		separation of groups or adults/juveniles, collisions with marine fauna, inadvertent movement of animals into the oiled area, or scattering of oiled animals.	
Source Control (Securing Cargo/Trimming)	Source control activities such as cargo transfer and vessel trimming will reduce the volume of oil released to the marine environment. Consequently these response strategies will not create additional impacts on the marine environment over and above the spill itself.		Yes

6.4 Willdlife Protection and Rescue

Oiled wildlife response activities include the assessment of wildlife risks in time and space, real-time monitoring of the whereabouts of wildlife in relation to the oil, protection of nesting/haul-out sites, hazing and deterrence (scaring animals away from oil), pre-emptive capture and collection of un-oiled animals and their offspring/eggs, collection and analysis of corpses, euthanasia, rehabilitation of live oiled animals, their release to the wild and, finally, monitoring of post release survival.

All wildlife in Victoria is protected under the *Wildlife Act 1975* (Vic). As such, no personnel are permitted to handle wildlife without the permission or under the direction of the Department of Environment, Land, Water and Planning (DELWP).

DELWP has responsibility for the collection, assessment, cleaning and rehabilitation of wildlife impacted by marine pollution. DELWP manages the rescue and rehabilitation of wildlife affected by a marine pollution emergency with assistance from Parks Victoria and the Phillip Island Nature Park. The Phillip Island Nature Park Wildlife Rehabilitation Centre can care for up to 1,500 little penguins in the event of an oil spill.

AMOSC have oiled wildlife response (OWR) equipment available which could be used to supplement that owned by DELWP and Phillip Island Nature Park. In line with support for other oil spill response contingency systems, the National Plan also provides support to state wildlife response arrangements.

Access to international experts in oiled wildlife advice can be made available via activation of OSRL. OSRL have an agreement with Sea Alarm (based in Belgium; https://www.sea-alarm.org/) for access to expert oil wildlife advice. Sea Alarm can assist with identification of international resources, development of oiled wildlife response plans, and together with OSRL coordinate mobilization of oiled wildlife response equipment from OSRL bases.

7. Consultation

Esso has undertaken consultation with all relevant stakeholders potentially affected by the geophysical and geotechnical campaign. The principles of stakeholder engagement are to:

- Provide meaningful information in a format and language that is readily understandable and tailored to the needs of the target stakeholder group(s)
- Provide information in advance of consultation activities and decision-making
- Disseminate information in ways and locations that make it easy for stakeholders to access it
- Respect local timeframes and decision making processes
- Establish two-way dialogue that gives both sides the opportunity to exchange views and information, to listen, and to have their issues heard and addressed
- Adopt processes free of intimidation or coercion
- Develop clear mechanisms for responding to people's concerns, suggestions, and grievances
- Incorporate feedback into program design, and report back to stakeholders
- Demonstrate that stakeholders have been consulted in accordance with the requirements of the OPGGS (Environment) Regulations 2009.

7.1 Stakeholder identification

Esso identified all stakeholders potentially affected by the Baldfish Exploration Drilling Campaign. Since the geophysical and geotechnical activities are a prerequisite for the drilling campaign, the same stakeholders apply to the activities described in this EP Summary. The following stakeholders were identified, as summarised in **Table 7-1**:

Table 7-1: Identified Stakeholders

Department of Industry, Innovation and Science (DoIIS)
Department of Environment and Energy (DoEE)
Australian Maritime Safety Authority (AMSA) Search and Rescue / Systems Safety Standards
Australian Fisheries Management Authority (AFMA)
Department of Economic Development, Jobs, Transport and Resources (DEDJTR Transport)
Department of Economic Development, Jobs, Transport and Resources (DEDJTR Earth Resources)
Department of Environment, Land, Water and Planning (DELWP)
Environment Protection Authority, Victoria (EPA Vic)
VicPlan Operations Group (VPOG)
Gippsland Ports
Parks Victoria
Country Fire Authority
State Emergency Service
Water Police

Phillip Island Nature Park
Australian Marine Oil Spill Centre (AMOSC)
Oil Response Company of Australia (ORCA)
Asia Pacific Applied Science Associates (RPS APASA)
Wildlife Victoria
Commonwealth Fisheries Association (CFA)
Seafood Industry Victoria (SIV)
Sustainable Shark Fishing Association
Victorian Scallop Industry Association
Victorian Bays and Inlets Fisheries Association
Victorian Fishery Association Resource Management
Victorian Rock Lobster Association
Eastern Victorian Sea Urchin Divers Association & Eastern Zone Abalone Industry Association
East Gippsland Estuarine Fishermen's Association
Lakes Entrance Fishermens' Co-operative Society Limited (LEFCOL)
Lakes Entrance Scallop Fishing Industry Association
Corner Inlet Fisheries Habitat Association
Victorian Recreational Fishing (VRFish)
MSS Security
East Gippsland Catchment Management Authority
Origin Energy
BHP Billiton Petroleum
ROC Oil Limited
Oil Basins Limited
Carnarvon Hibiscus Pty Ltd
Bass Oil Company Limited
Strategic Energy Limited
Seven Group Holdings
Wellington Shire Council
South Gippsland Shire Council
East Gippsland Shire Council
Port Philip Sea Pilots
Mornington Peninsula Shire

Port of Hastings Development Authority / Channels Authority
Victorian Ports Cooperation
Gippsland Coastal Board
Committee for Wellington
South Gippsland Marine Coastal Park
Port of Portland
Lakes Oil
Mitsui
Lakes Entrance Volunteer Coastguard
Australian Hydrographic Office (AHO)

7.2 Mechanisms for Consultation

A number of mechanisms to communicate with stakeholders have been used to ensure stakeholders can make an informed assessment of the possible consequences of the activity on their functions, interests or activities.

The following mechanisms to communicate with stakeholders:

- Written communications
- One-on-one discussions via telephone and in-person
- Public consultation session in Lakes Entrance (17 November 2017)
- Esso community news webpage

7.2.1 Written communications

Early in October 2017, an email update was sent to Esso's Public and Government Affairs existing offshore stakeholder database, informing them about upcoming activities in the Gippsland Basin and reason Esso was seeking to consult with the stakeholders. A three-page fact sheet (*Esso Offshore Projects*) was attached, providing details of the planned geophysical and geotechnical campaign. Additionally, it included an invitation to attend the public consultation session in November 2017, or arrange an alternative meeting time at their convenience.

Personal invitations for the Lakes Entrance consultation forum went out to relevant stakeholders in October 2017. In addition to the letter drop and fact sheet, the Lakes Entrance consultation forum was promoted through a series of announcements in a local newspaper (Gippsland Times: "*Back in the hunt for Gippsland gas",* 26 September 2017), with ongoing communications in fishing trade magazines (SETFIA, LEFCOL).

At that point of the consultation process some stakeholders indicated they had received adequate information, had no comments, and would like to be 'considered consulted'. A greater number indicated a general interest in being 'kept in the loop' without any specific comments or queries about the planned activity. For all those stakeholders who had not explicitly conveyed they had received sufficient information, Esso sent a summary of the information presented at the consultation forum, along with Esso's strategies for managing and reducing activity risks to as low as reasonably practicable.

7.2.2 One-on-one discussions via telephone and in-person

Depending on the stakeholders' preference, telephone and in-person discussions were held to clarify and discuss the survey. This also included meetings held in Southbank and Lakes Entrance.

7.2.3 Public consultation session in Lakes Entrance

The public consultation session was held in Lakes Entrance on 17 November 2017 and was intended to consult about the project, and provide an opportunity for both known stakeholders and unknown stakeholders to learn more about Esso's offshore operations. Invitations were announced widely, followed up by individual follow-up invitations by telephone in the week before the public consultation session.

The session was well attended, with 32 stakeholders confirmed, from a wide range of backgrounds, of which 27 attended on the day. Key stakeholders with particular relevance to the geophysical and geotechnical survey locations included Johnathon Davey from Seafood Industry Victoria and Brad Duncan from LEFCOL. Esso was represented by the Offshore Operations Manager (Geoff Humphreys), the Offshore Risk, Environmental & Regulatory Supervisor (Carolyn Thomas), Public and Government Affairs (Joanna Le Lotto) and the Project SSHE Coordinator (Rob Tyler). A brief overview of planned activities, including the Baldfish Exploration Drilling program, was presented by the Esso Offshore Operations Manager. This was followed by a Q&A session and one-on-one conversations.

A series of informative posters were also presented at the session, which visitors were invited to read and discuss with Esso personnel. In addition, the flyer with information on the upcoming activities in Bass Strait was available for visitors to take away

No major concerns were raised with regards to the geophysical and geotechnical campaign.

7.2.4 Project-specific webpage

In August 2017, Esso updated its offshore webpage (www.exxonmobil.com.au/) with information about the forthcoming activities in Bass Strait, which included:

- Downloadable PDF of the fact sheet ("*Esso Offshore Projects*") on planned activities in Gippsland Basin, which included an announcement about the upcoming consultation session (Oct. 2017)
- Information about Esso plans to extend field life of Gippsland basin through exploration in Block VIC/P70
- The webpage also features a clear "*contact us*" link for interested parties to email Esso.

An "Offshore projects" page was created in November 2017, to provide ongoing updates on Esso offshore activities (http://www.exxonmobil.com.au/en-au/energy/natural-gas/natural-gas-operations/offshore-projects).

7.2.5 Outcomes

Much of the interaction with stakeholders during the consultative process was administrative in nature. Common reasons for providing feedback throughout the process were to:

- Re-direct Esso's communication to another position in the organization
- Advise Esso the stakeholder would like to be kept updated about Esso's offshore operations
- Notification they had received the information and considered themselves consulted.

A summary of feedback is provided in Appendix A. No issues or concerns were raised by stakeholders in relation to the geophysical and geotechnical activities. All actions are considered closed out and no

further control measures are required. All stakeholders (unless they specified otherwise) will be included in ongoing consultation as described in Section 7.3.

7.3 Ongoing consultation

Esso will continue to consult with stakeholders, and will continue to maintain the Stakeholder Consultation Log, for the Geophysical and Geotechnical Survey.

Esso and its field based contractor will comply with requests from stakeholders for additional information and requests for updates during the activity. As required under sub regulation 16(b), Esso shall assess the merits of any new claims or objections made by a stakeholder whereby they believe the activity may have adverse impacts upon their interest or activities. If the claim has merit, where appropriate, Esso shall modify management of the activity.

Furthermore, should stakeholder feedback identify a new impact or risk not previously assessed, or an increased impact or risk, the EP will be revised as described in Section 5.5.

Esso will re-engage with relevant stakeholders closer to the time of the Geophysical and Geotechnical Survey to provide them with the survey start date, name of vessel and call sign details. On completion of the activity, notification will be sent to the relevant stakeholders or those that request post survey notification.

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Appendix A

West Barracouta Stakeholder Consultation Summary

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
1	**Australian Marine Oil Spill Centre**	Starkins, Phillip	Deputy General Manager	141	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				142	10-Oct-17	Email rec'd from P Starkins enquiring about further details of field / asset sales. S Hine (EAPL)s and P Starkins have touched based re Esso activities which may interface with AMOS and & look forward to consultation on drilling activity EP / OPEP & opportunity to input.	☑	Requested Esso contact re maintenance of dispersant at BBMT. Note: Not relevant to Baldfish or G&G EPs.	10-Oct-17
				1151		K Hall (EAPL) emailed P Starkins advising no news on field / asset sales. B Robinson / S Hine (EAPL)s best contacts re dispersant stocks.	☐	No objections, claims or issues raised	
				143	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				144	09-Nov-17	K Waterhouse (EAPL) called land line and mobile and left message re community session	☐	No objections, claims or issues raised	
				1165	15-Dec-17	Meeting at Esso House with Phillip Starkins where oil spill modelling and OPEPs for Baldfish and& G&G campaign were discussed.	☑	Copy of OPEPs to be provided to AMOSC to review.	18-Dec-17
				1291	18-Dec-17	S Hine (EAPL) email P Starkins: Further to our discussion last week, can you please have someone in AMOSC conduct a high level review of the OPEP for the Baldfish Drilling and Bass Strait G&G program, in particular for any items related to support from AMOSC.	☑	No objections, claims or issues raised	21-Dec-17
				1181	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
				1292		Response rec'd from P Starkins - see attached letter re Consultation of AMOSC on Baldfish Drilling Oil Pollution Emergency Plan	☐	No objections, claims or issues raised	
2	**Australian Maritime Safety Authority**	Pugsley, Luke	Senior Advisor Nautical & Hydrographic	106	09-Oct-17	Sent Esso Stakeholder Update email to David Imhoff (copy in EP Consultation mailbox)	☐	No new objections, claims or issues raised	
				1154	12-Oct-17	Email sent to L Pugsley from S Lemmens (EAPL) re stakeholder consultation being underway and looking for formal input.	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
2	**Australian Maritime Safety Authority**	Pugsley, Luke	Senior Advisor Nautical & Hydrographic	1155	17-Oct-17	Email rec'd from AMSA re AIS traffic plots, temporary shipping fairways, use of guard vessel, transmitting messages to vessels and radio-navigation warnings.	☐	No objections, claims or issues raised	
				108	06-Nov-17	F/U email sent by S Lemmens (EAPL) asking if further consultation with the shipping community on this matter is required or advisable. Awaiting response.	☐	No objections, claims or issues raised	
				1156	09-Nov-17	Email from S Lemmens (EAPL) re WDB review for Baldfish Drilling Campaign and agreed coordinates.	☑	Confirm AMSA rec'd revised coordinates.	15-Nov-17
				109	15-Nov-17	L Pugsley responded to S Lemmens (EAPL) that consultation with the entire shipping community would be too complex. He suggested contacting the Harbour Masters of Ports: Portland, Geelong, Melbourne and Transport Safety Victoria.	☑	K Waterhouse (EAPL) has contacted the Harbour Masters of Ports: Portland, Geelong, Melbourne and Transport Safety Victoria.	16-Nov-17
				1157		L Pugsley confirmed AMSA rec'd revised coordinates.	☐	No objections, claims or issues raised and Esso agree.	
				1180	21-Dec-17	Emailed updated Fact Sheet Response rec'd from Mel Clark requesting the ESRI ArcGIS shapefiles for the seabed survey and operational areas.	☑	C Thomas (EAPL) emailed shape files to M Clark (attached)	21-Dec-17
				1285	08-Jan-18	Email rec'd from Luke Pugsley wanting to confirm whether Esso intends to conduct further consultation for the VIC/L1 development and Cobia pipeline project as this will determine whether AMSA provide a formal response at this time.	☑	K Waterhouse sent email response: Esso will be conducting further consultation on both the VIC/L1 and Cobia pipeline projects. Both these are located within the Bass Strait Area to Be Avoided, so we don't envisage any significant impact to commercial shipping. Consultation directly with fishing industry groups will be undertaken to manage any interaction with their activities.	11-Jan-18
3	**Asia Pacific Applied Science Associates (Oil Spill Modelling)**	King, Brian	Managing Director and Chief Scientist	145	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1166	15-Nov-17	APASA completed oil spill modelling for Baldfish and G&G EEps	☐	No objections, claims or issues raised	
				1182	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
4	**Australian Fisheries Management Authority**	Goodspeed, Mandy	Environment Manager	135	13-Jul-17	Sent Esso Stakeholder Update email to George Day and petroleum@afma.gov.au (copy in EP Consultation mailbox)	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
4	**Australian Fisheries Management Authority**	Goodspeed, Mandy	Environment Manager	1450	05-Sep-17	Summary of fishing data and publications available online. Further data can be requested through Data Request Form.	☐	Data Request form	
				1451	06-Sep-17	Review of available data. Acknowledgement of Generic Email Petroleum <petroleum@afma.gov.au>. Request for Data Request Form.	☐	Data Request form	
				1452	12-Sep-17	Submission Data Request form fishing activity in Block VICP70	☐	Data Request form	
				136	09-Oct-17	Sent Esso Stakeholder Update email to George Day and petroleum@afma.gov.au (copy in EP Consultation mailbox)	☐	No objections, claims or issues raised	
				1159	12-Oct-17	Response rec'd from Sara Murphy advising data request is being processed.	☐	No objections, claims or issues raised	
				137	13-Oct-17	Email received to update contact to Mandy Goodspeed (from George Day)	☑	Updated contact details to Mandy Goodspeed G Day also requested that Simon Boag & Shane Duggins are included on consultation list, which they are.	14-Oct-17
				1160	26-Oct-17	S Lemmens (EAPL) had phone call with M Goodspeed re: Mandy enquired if we had spoken with SEFTIA. I responded that we have +provided written information by Email, that we will follow up with telephone conversations shortly, as well as face to face discussions and have invited them to Lakes Entrance Meeting. Mandy re-stated previous, that data are confidential, that only info on an area with less than 5 boats can be released, and that this determines minimum area they can release info on. I confirmed that we have studied ABARE data, that these are very useful, but that they do not provide adequate resolution on fishing activity in Block VIC/P70 Mandy stated that she will request info on 1 degree square as minimum (60 x 60 NM). I confirmed that we are happy to receive what every resolution they are comfortable releasing AFMA will independently advise regulators also on fishing activity in Block VICP70, as a matter of routine. Mandy will get quote to us ASAP.	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
4	**Australian Fisheries Management Authority**	Goodspeed, Mandy	Environment Manager	138	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				139	06-Nov-17	Email sent by S Lemmens (EAPL) requesting a status update on fishing data. Awaiting response.	☐	No objections, claims or issues raised	
				140	09-Nov-17	K Waterhouse (EAPL) spoke with Mandy Goodspeed and she requested we resend the invitation. Invite resent.	☑	9/11/17 K Waterhouse (EAPL): Invitation resent	09-Nov-17
				1178	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
7	**BHP Billiton Petroleum**	Coote, Michael	Bass Strait Coordinator, Australia JIU	146	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				147	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				148	09-Nov-17	ACCEPTED invitation	☐	No objections, claims or issues raised	
				312	17-Nov-17	Attended the Lakes Entrance Community session	☐	No objections, claims or issues raised	
				1186	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
8	**Country Fire Authority (Region 10)**	Rankin, Allan	Operations Officer – Fire and Emergency Management	149	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				150	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				151	09-Nov-17	K Waterhouse (EAPL) called land line and mobile and left message re community session. Awaiting response.	☐	No objections, claims or issues raised	
				1167	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
9	**Commonwealth Department of Environment**	Bowling, Renee	Southern Commonwealth Marine Reserve Management	152	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				153	16-Oct-17	Email received to update contact to Renee Bowling (from Phoebe Wood-Ingram)	☑	K Waterhouse (EAPL): Contact name updated	16-Oct-17
				154	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
9	**Commonwealth Department of Environment**	Bowling, Renee	Southern Commonwealth Marine Reserve Management	155	09-Nov-17	K Waterhouse (EAPL) spoke with Martin who DECLINED the invitation	☐	No objections, claims or issues raised	
				1193	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
10	**East Gippsland Catchment Management Authority**	Bartkowski, Amanda	Regional Landcare Coordinator	156	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				157	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				158	09-Nov-17	K Waterhouse (EAPL) called mobile left message re community session	☐	No objections, claims or issues raised	
				1168	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
11	**East Gipplsand Shire Council**	Ellis, Tim	Sustainability Coordinator / Member for Gippsland East	159	19-Oct-17	Sent Stakeholder email sent Email rec'd: This automated interim response confirms that your enquiry has been received	☐	No objections, claims or issues raised	
				160	06-Nov-17	K Waterhouse (EAPL) advised by Tristan Menalda (EAPL) that M Dennett rec'd invitation to Nov 17th Community Session in Lakes Entrance.	☐	No objections, claims or issues raised	
				1209	21-Dec-17	Emailed updated Fact Sheet Response rec'd: This automated interim response confirms that your enquiry has been received	☐	No objections, claims or issues raised	
13	**Environment Protection Authority Victoria**	Weidale, Jamie	Manager - Emergency Management	161	09-Oct-17	Stakeholder update email	☐	No objections, claims or issues raised	
				162	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				163	08-Nov-17	Invitation DECLINED	☐	No objections, claims or issues raised	
				1211	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
14	**Geelong Ports**	,		1216			☐	No objections, claims or issues raised	
15	**Gippsland Ports**	Murray, Nick	Chief Executive Officer / Marine Officer	164	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
15	**Gippsland Ports**	Murray, Nick	Chief Executive Officer / Marine Officer	165	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				166	08-Nov-17	Invitation ACCEPTED by P Bull Invitation DECLINED by N Murray	☐	No objections, claims or issues raised	
				167	16-Nov-17	Attendee changed from P Bull to D Holding	☐	No objections, claims or issues raised	
				313	17-Nov-17	David Holding attended the Lakes Entrance Community Session	☐	No objections, claims or issues raised	
				1217	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
17	**Lakes Entrance Fishermans' Co-op**	Duncan, Brad	Operations Manager	168	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				169	01-Nov-17	Rob Tyler (EAPL) spoke with Brad Duncan re the various Esso projects that are planned for the next 12 months – Baldfish Exploration drilling, Cobia pipeline repair and the West Barracouta development. Brad had received the flyer and the invite. Brad deferred the impact / interaction with fishers to Simon Boag (SETFIA) and would welcome a joint meeting with Simon - mentioned that the 17th November would be good after the larger stakeholder meeting planned.	☐	No objections, claims or issues raised	
				170	09-Nov-17	Email received Leigh Johnson and Dennis Shephard ACCEPTED invitation	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
17	**Lakes Entrance Fishermans' Co-op**	Duncan, Brad	Operations Manager	314	17-Nov-17	B Duncan attended the Lakes Entrance community session. The various projects were discussed with Brad and what impact there could be on the local fishermen. Cobia PRP will have virtually no impact, campaign is only a couple of weeks toward the end of the year and after the FIS survey. West Barracouta project is only at an early stage and the current campaign is only examining suitable locations for a rig and providing data for future project steps – further consultation will be undertaken as the project progresses. Baldfish drilling campaign may be the closest to the FIS locations, estimated about 20 min away but we are after the actual FIS coordinates to calculate the exact separation distances. The Baldfish drilling campaign is unlikely to have any impact on the FIS locations the level of noise and discharges is unlikely to be significant and may be hard to differentiate from the passing marine traffic. Explained Simon Boag had been asked for details of the FIS locations and Brad said he would discuss with Simon next time when they met. Brad and Simon see each other regularly. No major concerns raised.	☑	Potential issue with proximity of Baldfish to FIS survey location. Merits and issue to be further reviewed. No objections, claims or issues raised for West Barracouta.	
				317		Dennis Shepard attended the Lakes Entrance community session	☐	No objections, claims or issues raised	
				1163	14-Dec-17	R Tyler (EAPL) sent email to B Duncan looking to confirm the location of the nearest FIS locations to next years drilling campaign, as discussed at the Lakes Entrance meeting in November.	☐	No objections, claims or issues raised	
				1221	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
18	**Lakes Entrance Scallop Fishing Industry Association**	Watts, Andrew	President	171	19-Oct-17	Sent Stakeholder email sent Bounced 19/10/17 Updated name and email address to Andrew Watts at LEFCOL from Steve Melissakis and resent email	☑	Updated contact & resent email.	19-Oct-17
				172	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				173	09-Nov-17	K Waterhouse (EAPL) called land line and left message re community session	☐	No objections, claims or issues raised	
				1222	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
20	**Wellington Shire**	Smith, Sharon	Coordinator Emergency Management	174	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
20	**Wellington Shire**	Smith, Sharon	Coordinator Emergency Management	175	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				176	09-Nov-17	K Waterhouse (EAPL) called land line and mobile left message re invite Sharon LM DECLINED invitation	☐	No objections, claims or issues raised	
				1274	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
23	**Security Services**	Gee, Paul	Business Manager	177	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1229	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
24	**Seven Group Holdings (formerly Nexus)**	Tyler, Rob	HSE and Regulatory Manager	178	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				495		Sent Esso Stakeholder Update email to Rob Tyler (EAPL) (copy in EP Consultation mailbox)	☐	No objections, claims or issues raised	
				496	20-Oct-17	Response received from Rob Tyler (EAPL). No concerns regarding proposed activities but would like to be kept updated as projects develop	☐	No objections, claims or issues raised	
				179		Thanks for the consultation, we have no concerns regarding your proposed activities but would like to be kept updated as your projects develop. SGHE have no immediate campaigns or projects planned for Bass Strait but this may change in 2018, if and when this occurs we will keep you informed to manage potential interactions.	☐	No objections, claims or issues raised	
				180	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				1249	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
25	**Oil Response Company Australia**	Cropley, Ben	Director	181	19-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				182	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				183	09-Nov-17	ACCEPTED invitation	☐	No objections, claims or issues raised	
				318	17-Nov-17	Did NOT attend the Lakes Entrance community session	☐	No objections, claims or issues raised	

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25	**Oil Response Company Australia**	Cropley, Ben	Director	1233	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
26	**Lattice Energy (formerly Origin Energy)**	Zaheer, Kamran		184	09-Oct-17	Stakeholder update email sent Bounced	☑	Identify new contact	18-Oct-17
				185	18-Oct-17	Contact name updated to Matt Quinn from Joanna Knight. SL to resend email.	☑	Resend email	25-Oct-17
				186	25-Oct-17	Contact name updated to Kamran Zaheer from Matt Quinn. Update resent.	☐	No objections, claims or issues raised	
				1220	21-Dec-17	Emailed updated Fact Sheet BOUNCED	☑	No objections, claims or issues raised	10-Jan-18
				1295	10-Jan-18	Fact sheet resent to correct email address	☐		
27	**Parks Victoria**	Graystone, Andrew	Manager, Fire and Emergency	187	09-Oct-17	Stakeholder update email sent Contact details updated per request	☑	Update contact details	09-Oct-17
				188	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				189	09-Nov-17	K Waterhouse (EAPL) called land line and left message for A Graystone re invite	☐	No objections, claims or issues raised	
				1172	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
28	**Port of Hastings**	Vedamuttu, Shane	Harbour Master	190	10-Oct-17	Stakeholder update email sent Updated contact details received - stakeholder update email resent	☑	Update contact details	20-Oct-17
				191	20-Oct-17	Email rec'd requesting additional recipient Sandra Johnson - stakeholder update email resent	☐	No objections, claims or issues raised	
				1238	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
29	**Phillip Island Nature Park**	Basterfield, Catherine	Chief Executive Officer	192	09-Oct-17	Stakeholder update email sent Contact details updated per request	☑	Update contact details	09-Oct-17
				193	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				194	09-Nov-17	ACCEPTED invitation	☐	No objections, claims or issues raised	
				319	17-Nov-17	Did NOT attend the Lakes Entrance community session	☐	No objections, claims or issues raised	
				1237	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
30	**Port Franklin Fisherman's Association**	Clarke, Neville	Secretary	195	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				196	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				197	08-Nov-17	Invitation DECLINED by N Clarke	☐	No objections, claims or issues raised	
				1236	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
32	**Victorian Ports Cooperation**	Dunk, Fiona	Manager Emergency Management	198	10-Oct-17	Stakeholder update email sent Bounced	☑	Identify new contact and update details	18-Oct-17
				199	18-Oct-17	Victorian Ports Cooperation now in control instead of Port of Melbourne Corporation Updated contact details received - resent stakeholder email	☐	No objections, claims or issues raised	
				200	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				201	09-Nov-17	K Waterhouse (EAPL) called land line and mobile - left message with answering service re invitation	☐	No objections, claims or issues raised	
				1264	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
33	**Seafood Industry Victoria**	Davey, Johnathon	Executive Director	202	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	10-Oct-17
				203	10-Oct-17	J Davey responded inquiring whether perhaps there was availability to sit down and discuss the information presented in the email, along with consultation options and where to from here. K Hall (EAPL) responded: Thanks for your email. Unfortunately I'm not going to be available for a face to face meeting until the week of 23 October. However, my colleagues may be available. Can you please clarify whether you're more interested in the update on current operations or future projects and related consultation? J Davey responded: I am interested in discussing all of the items you mentioned. Happy to wait until your available. Let's discuss a suitable date and time closer to when you're available.	☑	Arrange meeting J Davey	13-Nov-17
				204	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
33	**Seafood Industry Victoria**	Davey, Johnathon	Executive Director	205	08-Nov-17	Invitation ACCEPTED by J Davey	☐	No objections, claims or issues raised	
				1046	16-Nov-17	Carolyn Thomas (EAPL) called Jonathan Davey the night before the consultation session and talked to him at the session. He was keen for us to do a fish abundance study in Bass Strait (location, species etc.) but I explained that we get our information from ABARES and that it is sufficient for our purposes at present. He is based in Melbourne and would like to catch up with us again, but we haven't arranged this yet.	☑	Arrange meeting with J Davey	17-Nov-17
				315	17-Nov-17	Johnathon Davey attended the Lakes Entrance community session. Discussed with Johnathon seismic campaigns and they raised the issue that seismic campaigns can result in environmental impacts. We also discussed the nature of consultation and the amount of consultation that LEFCOL and SIV are asked to participate in, they said that there is a lot of consultation (too much) and that any means that the oil and gas industry could help reduce or make it more efficient would be gratefully received. Explained EAPL had combined the three projects in a single flyer and taken the opportunity of the operational stakeholder consultation to discuss the various projects to try and minimise the number of different requests for consultation. Also discussed the SIV newsletter which is now quarterly as a means of further disseminating the information to a greater number of fishermen. SIV and LEFCOL were both supportive of this as it may be the only real way in which individual fishermen will know of the various projects.	☑	Provide details of projects for incorporation within SIV newsletter Q1 2018. This action is now being tracked through Corvid 1290.	12-Jan-18
				1251	21-Dec-17	Emailed updated Fact Sheet Response rec'd from John Davey: Is this something You would like to inform Victoria fishers of in the new year? We would welcome the discussion of including this in our early March version of PROFISH that is distributed to all Victorian commercial fishers	☑	Forwarded to C Thomas (EAPL) for F/U	27-Dec-17
				1289	27-Dec-17	C Thomas (EAPL) responded: We would certainly be interested in including our fact sheet in the March edition of PROFISH. We can provide more detail on particular aspects of the planned work, if you think it would be of interest. Please advise what we need to do to proceed.	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
33	**Seafood Industry Victoria**	Davey, Johnathon	Executive Director	1290	08-Jan-18	J Davey responded: With our postage requirements for PROFISH, we could do a double sided A4 insert in the magazine, which is sent out to 700 commercial fishing contacts State-wide. It would be open to you guys to develop the A4 page with the information you want to inform industry of and what comment/response you desire. Then it's a matter of considering whether you want to do the printing and deliver them to us, or whether you provide us with a PDF and we can print them for you. Once we know this then I can give you more insight on cost to do so, the price will start at $2500 if the fliers are printed and delivered. If you want us to do the printing then these costs will need to be factored in on top of this. This sponsorship assists us ensure the magazine is maintained as a useful resource for industry and at free-of-charge. In the coming weeks we will begin our development and input search for the first quarter PROFISH, which will look to be distributed early-mid March.	☑	Provide details of projects for incorporation within SIV newsletter Q1 2018.	
34	**Cooper Energy (Formerly Santos)**	Earnshaw, Jodi		206	09-Oct-17	Stakeholder update email sent. Paul (Santos) requested to be taken off stakeholder list (no operations in Victoria).	☑	Update contact details	19-Oct-17
				207	19-Oct-17	Sent stakeholder email sent. Response received and contact names updated	☐	No objections, claims or issues raised	
				208	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				209	09-Nov-17	Jodi ACCEPTED invitation	☐	No objections, claims or issues raised	
				316	17-Nov-17	Jodi Earnshaw attended the Lakes Entrance community session	☐	No objections, claims or issues raised	
				1196	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
37	**South East Trawl Fishing Industry Association**	Boag, Simon	Executive Officer	213	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				214	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	

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37	**South East Trawl Fishing Industry Association**	Boag, Simon	Executive Officer	215	01-Nov-17	Rob Tyler (EAPL) phoned Simon Boag at 11 am, Simon busy, RT text message asking if he could call later and was after an opportunity to discuss the projects Esso are planning and would like to discuss how best to manage any potential interactions.	☐	No objections, claims or issues raised	
				216	03-Nov-17	Phone call b/w R Tyler (EAPL) and S Boag to discuss the various projects that Esso have planned in the next 12 months. Fact Sheet also emailed to S Boag. Main issues raised: - amount of consultation - proximity to FIS sites. R Tyler (EAPL) asked for coordinates of FIS sites to confirm separation distance but from the data we have looks about 20nM @ Baldfish which shouldn't have any impact.	☑	Esso have to consult but will try to coordinate projects to limit the number of requests. S Boag to provide coordinate of the FIS sites.	
				217	09-Nov-17	Called land line and mobile - no answer	☐	No objections, claims or issues raised	
				1164	14-Dec-17	R Tyler (EAPL) sent email looking to confirm location of nearest FIS locations to next years drilling campaign.	☑	Follow up with S Boag in 2018 to confirm FIS location	
				1248	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
				1457	12-Jan-18	Email received from S Boag: Please find FIS locations attached. SETFIA operates and maintains several SMS lists for commercial fisherman across three regions. You are interested in the eastern region. Here are a couple of examples (one from today) of the sort of SMS we send. The aim is to minimise the affects of oil/gas works on the fishing industry. SETFIA charges per SMS, the cost allows us to maintain software that sends group SMSs and to maintain the list, the maintenance is a lot of work. There are about 90 contacts on the eastern list. The list covers all sectors, State and C'wealth not just trawl. I suggest we need to meet and would like to do this in Lakes Entrance. This campaign will take some planning to minimise effects on the fishing industry.	☑	Issue 1: Proximity to FIS locations. Merit 1: Not relevant to G&G campaign due to survey timing prior to FIS and distance from FIS locations. Issue 2: Consultation with fishers via SMS. Merit 2: EAPL agree for Cobia and Baldfish projects. Not required for G&G campaign as vessel not significantly different to standard vessels operating in Bass Strait.	
38	**South Gippsland Shire Council**	Ellicott, Penni	Emergency Management Coordinator	210	09-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				211	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				212	08-Nov-17	Invitation DECLINED by P Ellicott	☐	No objections, claims or issues raised	

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38	**South Gippsland Shire Council**	Ellicott, Penni	Emergency Management Coordinator	1250	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
39	**State Emergency Service**	Wiebusch, Tim	Deputy Chief	218	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				219	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				220	09-Nov-17	left message on land line and spoke with Susan Fayers DECLINED invitation	☐	No objections, claims or issues raised	
				1044	17-Nov-17	R Tyler (EAPL) spoke with Ken Bodinnar about oil and gas developments explained what condensate was. Discussed the three projects at a high level. No specific issues raised he was just interested to know more about the O and G industry and what it was doing.	☐	No objections, claims or issues raised	
				1247	21-Dec-17	Emailed updated Fact Sheet Response rec'd: Out of office until 20-Dec-17	☐	No objections, claims or issues raised	
40	**Sustainable Shark Fishing Association**	Bailey, Brian	President	221	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				222	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				223	09-Nov-17	K Waterhouse (EAPL) spoke with David Stone MAYBE coming to community session	☐	No objections, claims or issues raised	
				1252	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
41	**Tasmanian Seafood Industry Council**	Harrington, Julian	Executive Officer	224	19-Oct-17	Sent Stakeholder email sent	☐	No objections, claims or issues raised	
				1256	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
42	**Transport Safety Victoria**	Swanton, Geoffrey	Senior Project Officer,Navigational Safety & VOZR	927	16-Nov-17	Stakeholder update email sent	☐	No objections, claims or issues raised	

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42	**Transport Safety Victoria**	Swanton, Geoffrey	Senior Project Officer,Navigational Safety & VOZR	928	07-Dec-17	Email received from G Swanton: Maritime Safety Victoria has a degree of oversight of vessel operations within state waters extending 3nm from the coast. We issue NTM when required and in some cases will issue direction to restrict vessel movements and operations based on safety if there is need to do so.ie activities in the vicinity of drilling operations, survey, works etc. Ill keep reading the newsletter updates. I notice that the operator at Barrys Beach is changing. When it occurs it would be good to have a contact so that we at a minimum can include them on our NTM distribution list and pass their contact onto other agency's who issue NTM.	☑	Provide contact @ Barry Beach to TSV	
				1257	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
43	**Department of Economic Development, Jobs, Transport and Resources**	Evans, Linda	Manager, Marine Pollution - Emergency Management Division	225	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				226	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				227	09-Nov-17	K Waterhouse (EAPL) Spoke with Linda Evans DECLINED invitation but will continue ongoing consultation with Sean Hines	☐	No objections, claims or issues raised	
				1200	21-Dec-17	Emailed updated Fact Sheet Response rec'd: I will be on leave from Monday 18 December 2017 until Tuesday 2 January. 2018. I will respond to your message when I return.	☐	No objections, claims or issues raised	
44		D'Silva, Dallas	Director Management, Policy, Science and Licensing	228	19-Oct-17	Sent Stakeholder email sent	☐	No objections, claims or issues raised	
				229	26-Oct-17	community session invite sent BOUNCED	☐	No objections, claims or issues raised	
				1199	21-Dec-17	Emailed updated Fact Sheet BOUNCED	☑	Fact sheet resent to update email Bill.lussier@vfa.vic.gov.au	10-Jan-18
				1294	10-Jan-18	Response rec'd: I am on leave until mid- December 2018. Please contact Dallas D'Silva	☑	Fact sheet resent to updated contact: dallas.dsilva@vic.gov.au	10-Jan-18

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45	**Department of Economic Development, Jobs, Transport and Resources**	Robinson, Tony	General Manager, Technical Services, Earth Resources Regulation, Department of Primary Industries / Principal Environment Adviser, Earth Resources Regulation	231	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				232	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				1198	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
46	**Department of Environment, Land, Water and Planning**	Vile, Rod		234	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				235	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				236	09-Nov-17	K Waterhouse (EAPL) called mobile and left message re invite	☐	No objections, claims or issues raised	
				1201	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
47	**VicPlan Operations Group**	Harper, Rebecca	Pollution Response Support Officer	237	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				238	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				239	09-Nov-17	Spoke with receptionist Linda who DECLINED invitation on behalf of R Harper	☐	No objections, claims or issues raised	
				1265	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
51	**Victorian Recreational Fishing (VRFish)**	D'Silva, Dallas	General Manager	240	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				241	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				242	09-Nov-17	K Waterhouse (EAPL) called land line and left message re invite	☐	No objections, claims or issues raised	

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51	**Victorian Recreational Fishing (VRFish)**	D'Silva, Dallas	General Manager	243	15-Nov-17	Michael Burgess left message DECLINED invitation but still wants to be included in any stakeholder consultation, esp sword fisherman	☐	No objections, claims or issues raised	
				1268	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
52	**Victorian Scallop Industry Association**	Zapantis, Andrew	Victorian Industry Member	244	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				245	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				246	09-Nov-17	K Waterhouse (EAPL) called mobile and land line and & left message on land line re invite	☐	No objections, claims or issues raised	
				1048	17-Nov-17	The representative from the Victorian Scallop Fishermen's Association was concerned that seismic activity could harm spawning scallops. We explained that the proposed work does not include any high-energy seismic and that there is no scientific evidence of seismic harming scallop populations. We gave him our contact details in case he would like to discuss any further concerns.	☐	No objections, claims or issues raised	
				1270	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
55	**Wildlife Victoria**	Masson, Karen	CEO	247	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				248	25-Oct-17	email bounced - updated email address from website. Stakeholder update email resent.	☑	Identify contact and update	25-Oct-17
				249	08-Nov-17	community session invite resent to alt email	☐	No objections, claims or issues raised	
				1277	21-Dec-17	Emailed updated Fact Sheet Response rec'd: Thanks for contacting the Wildlife Victoria office.	☐	No objections, claims or issues raised	
57	**ROC Oil Limited (formerly Anzon Retrocom)**	Griffin, Graham	HSE Manager	250	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				251	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				252	09-Nov-17	K Waterhouse (EAPL) called land line and left message re invite	☐	No objections, claims or issues raised	
				1245	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	

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58	**Oil Basins Ltd**	Dumbrell, Carl	Director & Company Secretary	255	09-Oct-17	K Waterhouse (EAPL) spoke to receptionist and OBL have DECLINED invitation	☐	No objections, claims or issues raised	
				253	10-Oct-17	Stakeholder update email sent. Contact details updated per request	☐	No objections, claims or issues raised	
				254	26-Oct-17	Community session invite sent	☐	No objections, claims or issues raised	
				1232	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
61	**Carnarvon Hibiscus**	Chapman, Leonie	Environment contractor	256	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				257	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				258	09-Nov-17	K Waterhouse (EAPL) called mobile left message re invite	☐	No objections, claims or issues raised	
				1191	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
62	**Roads and Maritime Services**	Wilde, Shayne	Senior Manager Marine Pollution Response	259	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				260	18-Oct-17	Email received with updated org name from Transport for NSW to Roads and Maritime Services	☑	Update contact details	18-Oct-17
				1244	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
63	**Department of Primary Industries, Parks, Water and Environment (Tasmania)**	Lamb, Letitia	Marine Pollution Officer	261	10-Jan-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1207	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
64	**Parks and Wildlife Service (Tasmania)**	Dick, Wayne	Marine Reserves Officer	262	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1243	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
66	**Apollo Bay Fishermen's Co-op**	Frost, Russell	Not available	1175			☐	No objections, claims or issues raised	

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70	**Victorian Bays and Inlets Fisheries Association**	Leonard, Gary	VBIFA Chairman	263	19-Oct-17	Sent Stakeholder email sent	☐	No objections, claims or issues raised	
				264	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				265	09-Nov-17	K Waterhouse (EAPL) spoke with Gary Leonard DECLINED invitation	☐	No objections, claims or issues raised	
				1259	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
71	**Victorian Fishery Association Resource Management**	Gazan, John	Commercial Fishing Access Holder	266	19-Oct-17	Sent Stakeholder email sent - Bounced	☐	No objections, claims or issues raised	
				267	26-Oct-17	community session invite sent - BOUNCED	☐	No objections, claims or issues raised	
				268	09-Nov-17	K Waterhouse (EAPL) spoke with John Gazan DECLINED invitation (and no longer has an email address)	☐	No objections, claims or issues raised	
				1262	21-Dec-17	Emailed updated Fact Sheet BOUNCED notes below advise stakeholder no longer has an email address	☐	No objections, claims or issues raised	
73	**Victorian Rock Lobster Association**	Lucas, David	Executive Officer	269	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				270	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				271	09-Nov-17	K Waterhouse (EAPL) called land line and left message re invite	☐	No objections, claims or issues raised	
				1269	21-Dec-17	Emailed updated Fact Sheet Response rec'd: was deleted without being read on Wednesday, December 20, 2017	☐	No objections, claims or issues raised	
74	**Warrnambool Professional Fishermen's Association**	Ryan, Gary	Not available	272	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1276	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
76	**Commonwealth Fisheries Association**	Vajtauer, Renee	Chief Executive Officer	273	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1194	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	

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77	**Southern Shark Industry Alliance**	Ciconte, Anthony	Executive Director	275	08-Nov-17	sent stakeholder update email	☐	No objections, claims or issues raised	
				1173	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
				1253			☐	No objections, claims or issues raised	
79	**Eastern Victorian Sea Urchin Divers Association**	Ellis, Geoff	Executive Officer	274	10-Oct-17	Stakeholder update email sent Bounced	☑	Identify contact and update contact details.	19-Oct-17
				276	19-Oct-17	Email address found online - resent stakeholder email	☐	No objections, claims or issues raised	
				277	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				278	09-Nov-17	K Waterhouse (EAPL) spoke with G Ellis DECLINED invitation	☐	No objections, claims or issues raised	
				1213	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
81	**Australian Oceanographic Services**	Levings, Andrew	Research Fellow	1286	19-Dec-17	Email rec'd from Andrew Levings in response to ad in "Lakes Times". AOS has two vessels – one at Lakes Entrance, the other at Devonport; for ExxonMobil to consider for offshore work. Each of these vessels carry the correct commercial AMSA Safe Operating Certificates as well as recent audits to IMCA CMID or Polarcus SVIC standard.	☑	Forwarded to C Thomas (EAPL) for F/U	19-Dec-17
				1287		C Thomas (EAPL) responded: Our Major Programs – Underwater Operations coordinator is Wendy Chambers. She can be contacted on 03 5143 6366, or wendy.chambers@exxonmobil.com	☐	No objections, claims or issues raised	
				1170	21-Dec-17	Emailed updated Fact Sheet BOUNCED	☑	Fact sheet resent to updated email address: alevings1@gmail.com	10-Jan-18
82	**East Gippsland Estuarine Fishermen's Association**	Allen, Arthur	Deputy Chair	279	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				280	26-Oct-17	community session invite sent - BOUNCED	☐	No objections, claims or issues raised	
				281	09-Nov-17	left message on mobile re invite	☐	No objections, claims or issues raised	
				1208	21-Dec-17	Emailed updated Fact Sheet BOUNCED	☑	Resent Fact Sheet to updated email dianneallen57@hotmail.com	10-Jan-18

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83	**Corner Inlet Fisheries Habitat Association**	Henderson, Donald	Member	282	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				283	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				284	09-Nov-17	K Waterhouse (EAPL) spoke with D Henderson DECLINED invitation for himself and J Pinzone	☐	No objections, claims or issues raised	
				1195	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
84	**Port Phillip Sea Pilots**	Buck, Robert	Managing Director	1169			☐	No objections, claims or issues raised	
85	**National Offshore Petroleum Titles Administrator**	Crooks, Gavin	Assistant Manager - Titles	1231		Emailed updated Fact Sheet BOUNCED	☑	Resent fact sheet to updated email address: corporate@nopta.gov.au	10-Jan-18
87	**Bass Oil**	White, Terry	Chief Executive Officer	285	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				286	26-Oct-17	community session invite sent - BOUNCED	☐	No objections, claims or issues raised	
				287	09-Nov-17	K Waterhouse (EAPL) called land line and left message re invite	☐	No objections, claims or issues raised	
				1185	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
88	**Alistair Mailer**	Mailer, Alistair	Community member	1171			☐	No objections, claims or issues raised	
90	**Water Police**	Henderson, Matt	Acting Senior Sergeant	289	18-Oct-17	Sean Hine suggested using waterpolice-oic@police.vic.gov.au - update email sent	☐	No objections, claims or issues raised	
				290	22-Oct-17	Contact updated to Matt Henderson from Alan Rice	☐	No objections, claims or issues raised	
				291	26-Oct-17	community session invite sent	☐	No objections, claims or issues raised	
				292	09-Nov-17	K Waterhouse (EAPL) left message re invite	☐	No objections, claims or issues raised	
				293	10-Nov-17	K Waterhouse (EAPL) spoke to M Henderson who advised A Rice ACCEPTED invitation	☐	No objections, claims or issues raised	

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90	**Water Police**	Henderson, Matt	Acting Senior Sergeant	1047	17-Nov-17	The water police told us that the swordfish fishing tourist operator numbers in Bass Strait are expanding rapidly. They are looking for support / funding for an awareness campaign regarding our facilities and the 500m safety zones (signage, pamphlets, coastguard personnel). J De Lotto (EAPL) was going to look into whether we have any funding available.	☑	Look into whether we have any funding available.	11-Dec-17
				1140	11-Dec-17	J De Lotto (EAPL) sent an email to the Paynesville Volunteer Coast Guard as there are funds left over in this year's budget. She will follow up again but too late now to try get payment in 2017.	☑	Follow up on funding with volunteer coastguard in 2018	
				1272	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
93	**Mornington Peninsula Shire**	Flectcher, Brett	Emergency Management Coordinator	294	10-Oct-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1228	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
99	**Department of Agriculture and Water Resources**	Holloway, Matthew	Director Compliance Division	295	09-Nov-17	sent stakeholder update email	☐	No objections, claims or issues raised	
				1197	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
100	**CarbonNet**	,		1142	06-Oct-17	J De Lotto (EAPL) provided a very brief overview of activities at meeting and made reference to projects we're looking at undertaking in 2018.	☐	No objections, claims or issues raised	
				1189	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
101	**Victorian Fisheries Authority**	Young, Emma	Project Officer, Fisheries Management and Science	297	08-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1260	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
102	**Department of Environment & Energy**	zTBA, zTBA		298	08-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1204	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	

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103	**Director of National Parks**	zTBA, zTBA		299	08-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1206	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
104	**Department of Defence**	zTBA,	Australian Hydrographic Office	1455	05-Oct-17	Temporary Fairways	☑	Provide further details to AHS AHS supports a Preliminary notice to mariners (6-8 weeks in advance) informing about the upcoming introduction of a two-way routing measure followed up by a Temporary notice while effective.The ENCs will have the feature added and removed accordingly.Esso to confirm all the details including starting and ending date, coordinates, purpose of the routeing measure, etc.The AHS POC for this matter is Glen Cook (glen.cook@defence.gov.au - Manager of the chart maintenance section).	
				300	06-Nov-17	Being dealt with through AMSA - no further consultation required	☐	No objections, claims or issues raised	
				1143	14-Dec-17	Stakeholder update email and fact sheet sent	☐	No objections, claims or issues raised	
				1203	21-Dec-17	Emailed updated Fact Sheet Response rec'd: Thank you for emailing the Australian Hydrographic Service (AHS). Please accept this email as acknowledgement that your email has been received by the AHS.	☐	No objections, claims or issues raised	
105	**Department of Foreign Affairs & Trade**	Googan, Michael	Director, Sea Law, Environment Law and Antarctica Section, International Legal Branch	301	08-Nov-17	Stakeholder update email sent. Response - out of office until 10/11/17	☐	No objections, claims or issues raised	
				1205	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
107	**Boating Industry Association of Victoria**	zTBA, zTBA		303	16-Nov-17	Stakeholder update email sent	☐	No objections, claims or issues raised	
				1187	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
108	**Central Coastal Board**			304	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	

ID	Organisation Full	Contact Name	Position	CorespID	Corresp Date	Summary	F/U	Objections/Claims/Issues/Merits	Closed Out
108	**Central Coastal Board**	zTBA, zTBA		1192	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
109	**Life Saving Victoria**			305	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1224	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
110	**Western Coastal Board**			306	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1273	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
111	**Yachting Victoria**	Wall, Gavin	Regional Manager	307	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1278	21-Dec-17	Emailed updated Fact Sheet Response rec'd: Out of office until 8-Jan-18	☐	No objections, claims or issues raised	
112	**Victorian Regional Channels Authority**	Abraham, Dilip	Harbour Master, Port of Geelong	308	16-Nov-17	stakeholder update email sent Response received thanking us for the update	☐	No objections, claims or issues raised	
				1266	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
113	**Port of Geelong**	zTBA, zTBA		309	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1240	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
114	**Port of Melbourne Corporation**			310	16-Nov-17	K Waterhouse (EAPL) left message requesting contact details for Harbour Master. KJW received a CB with address to forward email update. KJW stakeholder update email sent.	☐	No objections, claims or issues raised	
				1241	21-Dec-17	Emailed updated Fact Sheet Response rec'd from Leonora Curnick: I have received this email from Katrina Hall (EAPL) but I don't know why. Is it meant for the Port of Melbourne Harbour Master and if so has he been sent a copy? Are you able to enlighten me, please?	☑	Forwarded to C Thomas (EAPL) for F/U	27-Dec-17

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114	**Port of Melbourne Corporation**	zTBA, zTBA		1293	27-Dec-17	C Thomas (EAPL) replied to L Curnick: The stakeholder update was sent to a broad list of individuals and groups with potential interest in Esso's activities in Bass Strait, including Port of Melbourne, Port of Hastings and Gippsland Ports. You were included on our list because we have sent you similar updates in the past and/or we thought it may be of interest to you or your members. If you would prefer not to be sent similar information in the future, or have any further questions, please let me know.	☐	K Waterhouse (EAPL) also sent email requesting contact details for Port of Melbourne Harbour Master.	
115	**Port of Portland**	Shennan, David	Habour Master, Port of Portland	311	16-Nov-17	stakeholder update email sent	☐	No objections, claims or issues raised	
				1242	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
116	**Gippsland Times**	,		320	26-Sep-17	Undertaking a series of ads in the Gippsland Times focusing on our economic contribution, investment and community outreach in Gippsland and mentions our exploration program.	☐	No objections, claims or issues raised	
				1218	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
117	**Lakes Post**			1141	14-Dec-17	Advertisement appearing this week's Lakes Post (see attachment)	☐	No objections, claims or issues raised	
				1219	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
118	**Australian Communications And Media Authority**	zTBA,		1144	14-Dec-17	Stakeholder update email and fact sheet sent	☐	No objections, claims or issues raised	
				1176	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
119	**Border Protection Command**			1188			☐	No objections, claims or issues raised	
120	**Tuna Australia Ltd**	Ellis, David	CEO	1145	14-Dec-17	Requested contact details via the Enquiry Form on their website	☑	Send fact sheet	19-Dec-17
				1149	19-Dec-17	Contact details received and update email and fact sheet sent as requested.	☐	No objections, claims or issues raised	
				1254	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
121	**Australian Southern Bluefin Tuna Industry Association**	zTBA,		1146	14-Dec-17	Stakeholder update email and fact sheet sent	☐	No objections, claims or issues raised	

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121	**Australian Southern Bluefin Tuna Industry Association**	zTBA,		1183	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	
122	**3D Oil**			1147	14-Dec-17	Stakeholder update email and fact sheet sent.	☐	No objections, claims or issues raised	
				1174	21-Dec-17	Emailed updated Fact Sheet	☐	No objections, claims or issues raised	