ExxonMobil

Bass Strait Operations

Decommissioning Report 2024

Esso Australia Resources Pty Ltd

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Esso Australia Resources Pty Ltd (Esso) is a wholly owned subsidiary of ExxonMobil Australia Pty Ltd. Esso is the operator of the assets in Bass Strait that are part of the Gippsland Basin Joint Venture between Esso and Woodside Energy (Bass Strait) Pty Ltd (Woodside Energy) and the Kipper Unit Joint Venture (Esso, Woodside Energy, and Mitsui E&P Australia Pty Ltd).

Esso acknowledges Aboriginal and Torres Strait Islander people as the Traditional Custodians of the land and acknowledges and pays respect to their Elders, past and present.

Esso committed to safe and inclusive workplaces, policies and services for people of LGBTIQ communities and their families.

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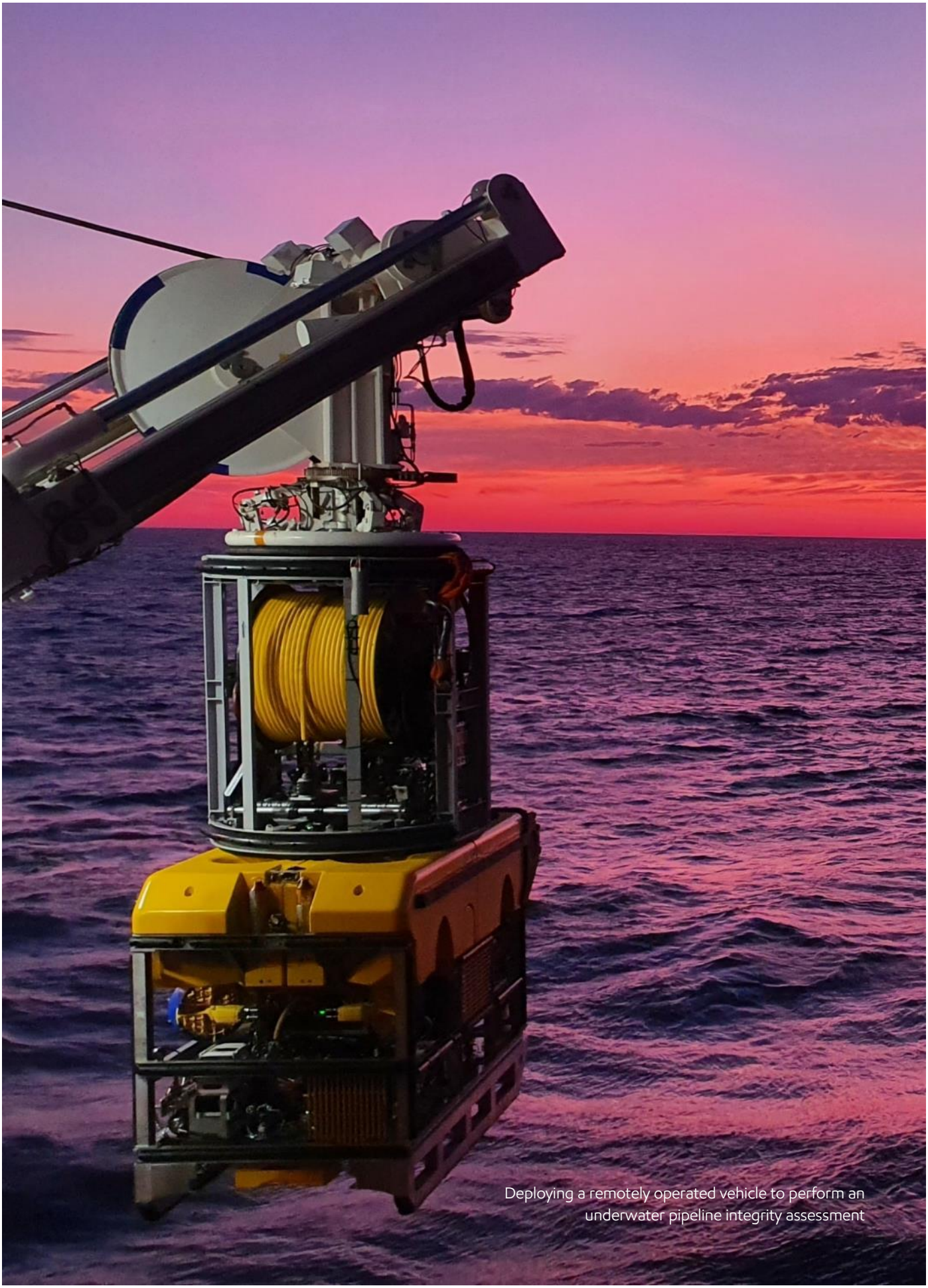


Deploying a remotely operated vehicle to perform an underwater pipeline integrity assessment

Executive Summary

"The combination of a highly experienced workforce and a collaborative approach to stakeholder engagement is enabling Esso to progress decommissioning activities in a manner that is safe and sustainable for local Gippsland communities and the environment"

Senior Project Manager Australia Major Projects, Andy Hospodar

Esso Australia Resources Pty Ltd (Esso), a wholly owned subsidiary of ExxonMobil Australia Pty Ltd, owns and operates assets in Bass Strait that consist of 421 wells, 19 platforms, six subsea facilities and more than 800 kilometres of subsea pipeline. These assets form part of the Gippsland Basin Joint Venture between Esso and Woodside Energy (Bass Strait) Pty Ltd (Woodside Energy)) and the Kipper Unit Joint Venture (Esso, Woodside Energy, and Mitsui E&P Australia Pty Ltd).

Following more than 50 years of delivering energy for Australia, 13 of the platforms, four subsea facilities, 26 pipelines and around half of all wells, no longer produce oil and gas. In consultation with stakeholders, Esso is progressing the safe shutdown and decommissioning of the non-producing Bass Strait facilities.

At the same time, Esso is safely operating offshore platforms and subsea facilities that continue to produce energy for the region.

This Decommissioning Report is part of Esso's commitment to keeping government, interested non-government organisations and other stakeholders informed about the progress of decommissioning activities.

Decommissioning planning

Planning for Campaign #1, the first of the decommissioning campaigns, progressed in 2024. Campaign #1 covers all platforms that have reached the end of their production life and includes:

- removal of topsides and jacket to as close as practicable to seabed, to a maximum of 3 metres above seabed, with deep foundation piles to remain for the Whiting platform
- removal of topsides and upper jacket sections to at least 55 metres below mean sea level, which applies to seven platforms in deeper water (Cobia, Flounder, Kingfish A, Kingfish B, Mackerel, Fortescue and West Kingfish), with a potential additional scope for Halibut

- one of two removal options for Bream A: removal of topsides and jacket as close as practicable to seabed, to a maximum of 3 metres above seabed, with deep foundation piles to remain; or removal of radio tower and flare boom only if it is to repurposed for an alternate use
- removal of topsides only for the Bream B platform, which is a concrete gravity structure
- removal of two monotower platforms (Dolphin and Perch).

During 2024, Esso awarded an execution contract to Allseas Marine Contractors Australia (Allseas) following an extensive Heavy Lift Vessel contracting process, that included detailed technical, execution and commercial reviews. The Allseas Heavy Lift Vessel *Pioneering Spirit* is expected to arrive in Bass Strait in third quarter 2027 and will undertake work scopes including final topside separation, jacket separation and topside and jacket removal.

The Allseas Heavy Lift Vessel *Pioneering Spirit* lifting the topsides of a platform on a previous project

Additional Platform Supply Vessel capacity was also contracted during the year, with the *Skandi Kvitsøy* joining the fleet in the second quarter of 2024.

Esso undertook further desktop and field sampling across the Campaign #1 facilities with a specialist industry advisor in order to map an inventory of waste data for each of the facilities. This updated data will be used by the Facility Preparation, Removals and Disposal teams for safe planning and early preparation works.

Barry Beach Marine Terminal has been identified as the Onshore Reception Centre for transfer of removed infrastructure given its suitability and proximity to Bass Strait fields, which minimises potential risks associated with transportation of the removed structures in open water. It is an existing port facility, which has been part of South Gippsland's industrial precinct for over six decades and was where most of the Esso offshore facilities were constructed. Since the 1960s, the Terminal has been continuously operating as the supply depot for Bass Strait oil and gas operations and has the capacity and space to accommodate all the Campaign #1 facilities. Qube Energy as the Terminal operator will complete the necessary work to ensure the site is ready to receive the removed structures.

Various technical studies were also undertaken for the Onshore Reception Centre in 2024, including: infrastructure condition studies, detailed site investigations and road traffic surveys.

The Decommissioning Planning team continues to undertake technical studies to progress planning for future decommissioning activities in Bass Strait following Campaign #1. In 2024 these included:

- execution assessments of methodologies for removal of pipelines and umbilicals in Bass Strait
- feasibility assessments of methodologies for removal of the two concrete gravity structures (Bream B and West Tuna)
- early preparation and planning for Campaign #2 which would involve decommissioning of the remaining platforms in Bass Strait once they are no longer producing gas.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) approved the latest version of the *Gudgeon-1 and Terakihi-1 Plug and Abandonment Environment Plan* for the plug and abandonment of two non-producing subsea exploration wells (Gudgeon-1 and Terakihi-1) in February. The plug and abandonment of these wells was undertaken during May through to August.

The *Jack-up Rig Plug and Abandonment Environment Plan* was developed to manage the environmental impacts and risks associated with the plug and abandonment of 21 platform wells and five subsea wells. This Environment Plan was submitted to NOPSEMA in January and, following revisions, was accepted in October. The jack-up rig arrived on site in late October to begin plug and abandonment activities.

The *Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan* was revised in 2024 and issued to NOPSEMA for approval in May and following a request for further information will be resubmitted to NOPSEMA by year end 2024.

A revision to the West Kingfish Safety Case was submitted in April to reflect a change in operational phase from Production to Cessation of Production. This Safety Case has received two Requests for Further Written Information and will be resubmitted to NOPSEMA shortly.

The Whiting Safety Case was also revised to reflect a change in operational phase into Stasis Mode and was initially submitted in November. This revision is being worked further to incorporate NOPSEMA's feedback and plans are underway for a resubmission.

The Mackerel Safety Case was submitted and accepted in April, while the Fortescue Safety Case was initially submitted in November. This revision is being worked further to incorporate NOPSEMA's feedback and plans are underway for a resubmission. The Safety Case for the DOF Australia Pty Ltd-operated *Skandi Darwin* vessel was also revised to support the activities with revisions accepted in March for work at Mackerel and submitted in November for work at Fortescue. .

The Perch and Dolphin Safety Case was revised and accepted in October to allow the *Valaris 107* jack-up rig to complete well abandonment activities and also to reflect the change in operational phase from Cessation of Production to Stasis Mode. The Safety Case for the *Valaris 107* was revised and accepted in October to support these activities at Perch and Dolphin. It was then revised and accepted in November to enable well abandonment activities at Bream B.

The Safety Case for the Helix *Q7000* was revised and accepted in May to support plug and abandonment activities for Gudgeon-1 and Terakihi-1 subsea exploration wells.

Preparatory Decommissioning Activities

Work continued on Preparatory Decommissioning Activities that included: care and preservation; well plug and abandonment; and facility preparation, as well as inspection, maintenance and repair, at all non-producing facilities to comply with the *Bass Strait Environment Plan*.

Esso completed $575 million of decommissioning activities during the year, including: plug and abandonment of platform-based wells on Flounder, Bream A, Bream B, West Kingfish, Perch and Dolphin platforms; plug and abandonment of the Gudgeon-1 and Terakihi-1 subsea wells; and commenced facility preparation on Fortescue and Kingfish B platforms. This is in addition to the $340 million of decommissioning activities completed in 2023. By the end of 2024, Esso had completed almost $2 billion of decommissioning activities.

More than 600 people were engaged in 2024 for plug and abandonment works, with a further 100 people employed for care and preservation work, including inspection, maintenance and repairs.

The plug and abandonment activities were undertaken using multiple mobile offshore assets including the Helix semi-submersible *Q7000*, *Valaris 107* jack-up rig, the Multi-Purpose Support Vessel *Skandi Darwin* and platform-based Rig 22 and HWT600.

In August, the *Q7000* completed the plug and abandonment of two non-producing subsea exploration wells, Gudgeon-1 and Terakihi-1.

In October, the *Valaris 107* jack-up rig arrived in Bass Strait to commence plug and abandonment of the Marlin-1, Whiptail-1A, Mulloway-1, Halibut-1 and East Pilchard-1 subsea wells and 21 platform-based wells at Bream B, Perch and Dolphin platforms. By the end of the year the plug and abandonment of two wells at Perch and two wells at Dolphin was completed by *Valaris 107* and the first stage of the plug and abandonment scope on Bream B wells, was performed by the *Skandi Darwin*. By the end of the year, the second stage of the plug and abandonment scope had commenced at Bream B with the full scope expected to be completed early 2026.

The HWT600 completed plug and abandonment for 13 of the wells at West Kingfish. It was also used to continue plug and abandonment activities at Bream A with 18 wells completed by the end of the year. Rig 22 completed plug and abandonment of all 27 platform-based wells at Flounder.

By the end of the year, plug and abandonment work was completed on more than 150 wells. This includes 134 wells covered under General Direction 817.

The Facility Preparation team commenced the facility preparation scope at Fortescue platform, which included the flush and drain of the topsides process systems; electrical de-energisation; air gapping, deconstruction and lift point installation. Bulk flushing of jacket leg storage and associated caissons was also completed.

A large-scale pile cleaning trial was conducted on the two piles at Fortescue to determine the most successful method for undertaking the cleaning. Results of the trial will be used to inform pile cleaning activities at other facilities. The platform is expected to be transitioned into Stasis Mode by the second quarter of 2025.

Planning for the facility preparation scope of work at Whiting and Blackback continued during 2024 with the works expected to be executed in 2025.

Inspections were completed on all non-producing facilities during 2024.

The facility maintenance and inspection program has completed 47 major activities in 2024 including:

- platform above water inspections on Fortescue, Flounder, West Kingfish, Cobia and Kingfish A
- platform underwater inspections completed on Mackerel and Bream A and commenced on Halibut
- flare inspections of Kingfish B, Fortescue, Kingfish A and Cobia
- helideck inspections at West Kingfish and Kingfish B.

Structural platform above water assessments were also performed on the radio towers at Flounder, Mackerel and Bream A and flare booms at Halibut, Bream A and Fortescue. All structural repairs identified were completed.

In addition, repairs were performed on the Mackerel platform's helideck, while localised repairs were completed on the West Kingfish helideck. Strengthening of walkways and truss members on Kingfish A was also successfully completed.

Environmental studies

To support preparation of the Execution Environment Plan for Decommissioning Campaign #1, Esso undertook the following environmental studies during the year:

- underwater noise modelling and assessment
- potential oil spill modelling
- a desktop study to identify, analyse and assess estimated scope 1, 2 and 3 greenhouse gas emissions, as well as other air emissions
- sediment dispersion modelling for activities requiring sediment movement for removal or assessment of facilities
- light emissions modelling and potential impact assessment
- invasive marine species risk assessment
- monitoring of fur seal habitat use around offshore platforms.

Environmental studies being undertaken for the Onshore Reception Centre during the year include:

- terrestrial ecology
- cultural heritage assessment
- marine water quality monitoring
- terrestrial noise and vibration
- shorebirds and waders
- benthic habitat and marine ecology
- bushfire assessment
- flood assessment
- odour assessment
- visual amenity.

Environmental studies undertaken to support pipelines decommissioning during the year include:

- analysis of sediment samples near and around pipelines to characterise sediments
- analysis of the remotely operated vehicle (ROV) visual footage of on and off-pipeline areas to characterise ecology on pipelines versus reference sites
- execution of near shore habitat assessment along areas of 90 Mile Beach
- fate and transport modelling and environmental impact assessment of pipeline materials
- sampling and analysis of pipeline materials
- pipeline coatings analysis

- cumulative affects analysis of decommissioning activities in Bass Strait.

Stakeholder engagement

By the end of 2024, Esso completed over 6500 individual stakeholder engagements. Of these, more than 5500 directly related to decommissioning activities and included:

- decommissioning of Campaign #1 Steel Piled Jackets
- end state options for pipeline decommissioning
- well plug and abandonment of two exploration wells (Gudgeon-1 and Terakihi-1) using *Q7000*
- well plug and abandonment campaign using *Valaris 107*, Rig 22 and HWT 600
- revision of the *Bass Strait State Waters Environment Plan*
- revision of the *Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan*.

The number of engagements conducted during 2024 was higher compared to 2023, which reflects the increase in decommissioning planning activities and associated regulatory submissions.

During dedicated Campaign #1 stakeholder forums conducted in June and August, more than 80 people from across a range of different backgrounds took the opportunity to learn more about what was being considered to decommission the Esso platforms, ask questions and hear from each other about the potential risks and impacts of options being considered and how these could be managed.

Multiple information bulletins about Esso's decommissioning activities were also published during the year. All information bulletins are available on the Esso Consultation Hub.

Esso hosted 19 community information sessions in the local areas during 2024 including Lakes Entrance, Sale, Leongatha, Yarram, Welshpool, Foster, and Golden Beach. These community information sessions were advertised on community noticeboards and in national, state and local news outlets. Esso also staffed a booth and engaged with a wide variety of community members at the Sale Music Festival and Air Show in West Sale.

Esso will maintain an ongoing commitment to stakeholder engagement throughout all stages of the decommissioning process.

Andy Hospodar
Senior Project Manager Australia Major Projects
Esso Australia Resources Pty Ltd

Walk-to-work from *Skandi Darwin* vessel to platform without accommodation quarters enables more efficient decommissioning

1 Introduction

This annual Decommissioning Report provides a progress update on Esso's decommissioning-related safety, health, environment and social performance in Bass Strait from 1 January to 31 December 2024.

It is part of Esso's ongoing commitment to keeping government, interested non-government organisations and other stakeholders informed of decommissioning activities.

1.1 Overview

Esso Australia Resources Pty Ltd (Esso) is a wholly owned subsidiary of ExxonMobil Australia Pty Ltd. Esso operates assets in Bass Strait that form part of the Gippsland Basin Joint Venture between Esso and Woodside Energy (Bass Strait) Pty Ltd (Woodside Energy) and the Kipper Unit Joint Venture (Esso, Woodside Energy, and Mitsui E&P Australia Pty Ltd). These assets comprise 421 wells, 19 platforms, six subsea facilities and more than 800 kilometres of subsea pipeline. Esso receives services, including personnel, from Esso Australia Pty Ltd, which is also a wholly owned subsidiary of ExxonMobil Australia Pty Ltd.

The Bass Strait offshore facilities extract, process and store oil and gas, which is transported onshore for further processing and distribution to customers. The Bass Strait operations produce various products that range from gas and condensate to oil. Numerous reservoirs produce hydrocarbon products with different properties.

1.2 Operations history

The Gippsland Basin Joint Venture drilled Australia's first offshore well in Bass Strait in 1965, which resulted in the discovery of the Barracouta gas field. Two years later, the first offshore oil field called Kingfish was discovered. It remains the largest oil field ever discovered in Australia. Production from the first platform began in 1969.

Billions of dollars of infrastructure was built to develop, produce, and process crude oil and gas. This has been used to power industry, fuel vehicles, heat homes and support the manufacture of Australian and overseas products for more than 50 years. During this time, Esso has created highly skilled jobs and business opportunities in the local region that have delivered significant, long-lasting economic benefits.

Esso's Bass Strait activities are conducted by workers who live offshore, with up to 500 workers offshore at any one time. Support is provided by many more onshore workers, who process oil and gas at Esso's Longford and Long Island Point plants to supply gas to Australian customers, and liquids products to Australian and overseas customers.

Supply vessels and helicopters are used to support platform operations. Workers are transferred to and from platforms on regular flights from a heliport based in Longford. Supply vessels operate from Barry Beach Marine Terminal, moving between platforms to load and unload cargo.

The Gippsland Basin Joint Venture has provided more than 50% of Australia's crude oil and liquids production.

This equates to more than four billion barrels of crude oil and well over ten trillion cubic feet of gas since production began.

It supplies around 40% of eastern Australia's natural gas requirements. This makes the Bass Strait production network the largest single source of gas supply to Australia's east coast domestic market.

1.3 Decommissioning

After 50 years of operations, 13 platforms, four subsea facilities, 26 pipelines and approximately half of all wells drilled, are no longer producing oil and gas. Esso's Decommissioning team is planning for the decommissioning of these non-producing assets as well as the eventual decommissioning of all producing assets in Bass Strait.

Using lessons learned from Exxon Mobil Corporation's (ExxonMobil's) experiences in other locations, and from the ExxonMobil decommissioning centre of expertise, the Bass Strait Decommissioning team aims to ensure local decommissioning activities meet regulatory, community, government, and ExxonMobil requirements.

As decommissioning plans progress, Esso remains focused on safely shutting-down non-producing facilities, so they stay safe throughout the entire decommissioning process. At the same time, Esso continues to safely operate producing offshore platforms and subsea facilities.

1.4 Location

Esso's Bass Strait operations are located off Victoria's Gippsland coast in Australia. The Operational Area (OA) is entirely within the South-west Marine Region. Esso's facilities are in water depths that range from 38 metres (Dolphin platform) to 402 metres (Blackback subsea facility). Their distance from the coast ranges from 12 kilometres (Seahorse subsea facility) to 87 kilometres (Blackback subsea facility). Figure 1-1 shows the location of the Bass Strait facilities.

The Onshore Reception Centre will be located at the existing Barry Beach Marine Terminal, in Agnes, Victoria.

1.5 Facilities description

Bass Strait infrastructure contains staffed and unstaffed platforms and subsea facilities that have interconnecting pipelines and umbilicals.

1.5.1 Platforms

As outlined in Table 1-1, Esso's facilities include 19 platforms that consist of three types: steel piled jackets, concrete gravity structures, and monotowers.

Steel piled jackets

Esso's Bass Strait facilities include 15 steel piled jacket platforms and one steel piled jacket riser access tower. Steel piled jacket platforms have a tubular steel base structure (or jacket) that is fastened to the sea floor by piles. These jackets support 'topsides', as shown in Figure 1-2, that include the production facilities, living quarters for platform workers, and a helicopter landing pad. Some steel piled jacket platforms (Kingfish A, Kingfish B, Halibut and Marlin A), include a 'strut', which provides additional support. A 70-metre jacket is similar in height to a 20-storey building on land.

Table 1-1: Platform summary

Name	Type	Distance to coast (km)	Water depth (m)	Status
Barracouta	SPJ	23	46	P
Bream A	SPJ	46	59	NP
Bream B	CGS	51	61	NP
Cobia	SPJ	69	79	NP
Dolphin	MT	21	38	NP
Flounder	SPJ	58	93	NP
Fortescue	SPJ	64	69	NP
Halibut	SPJ	64	73	NP
Kingfish A	SPJ	77	77	NP
Kingfish B	SPJ	77	78	NP
Mackerel	SPJ	73	93	NP
Marlin A	SPJ	42	59	P
Marlin B	SPJ	42	59	P
Perch	MT	24	42	NP
Snapper	SPJ	32	55	P
Tuna	SPJ	43	59	P
West Kingfish	SPJ	72	76	NP
West Tuna	CGS + SPJ riser access tower	45	61	P
Whiting	SPJ	34	54	NP

SPJ: Steel piled jacket

CGS: Concrete gravity structure

MT: Monotower

NP: Non-producing

P: Producing

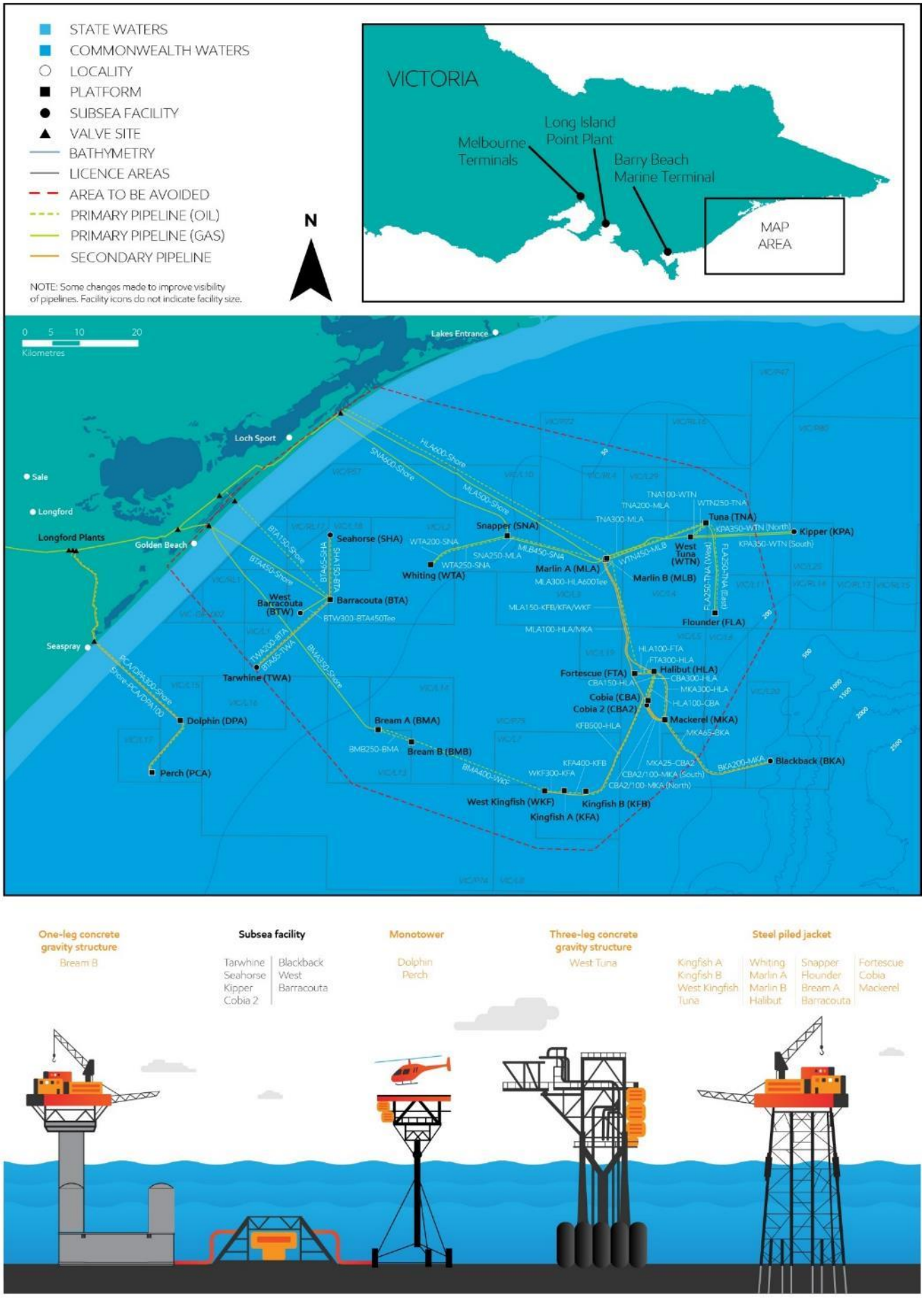


Figure 1-1: Location of facilities

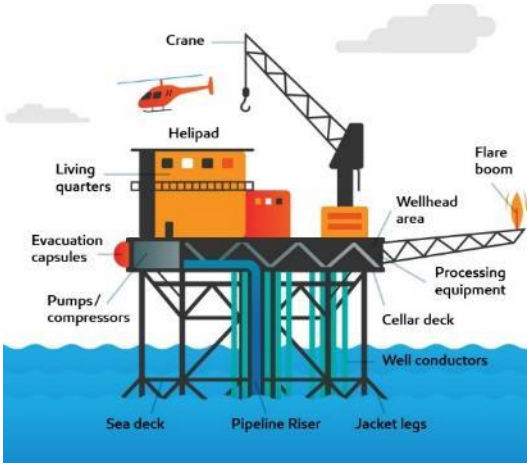


Figure 1-2: Typical steel piled jacket platform topsides

Concrete gravity structures

As shown in Figure 1-1, a concrete gravity structure platform is built on the seabed. Through its own weight, it is capable of withstanding the environmental forces that it may be exposed to during its lifetime.

Esso's Bass Strait operations include two concrete gravity structures, which are the West Tuna and Bream B platforms. These were the first concrete-based platforms to be constructed in Australia.

Monotowers

Esso's facilities include two monotowers in Bass Strait (as shown in Figure 1-1), the Perch and Dolphin platforms. They are fixed installation platforms, with each consisting of a steel gravity-based monotower with iron ore ballast.

These monotowers support minimal topside production facilities for two wells each.

1.5.2 Subsea facilities

Six subsea facilities are operated by Esso in Bass Strait as outlined in Table 1-2.

A typical subsea facility is illustrated in Figure 1-1.

Table 1-2: Subsea facilities summary

Name	Distance to coast (km)	Water depth (m)	Status
Blackback	87	402	NP
Kipper	41	95	P
Seahorse	21	42	NP
Tarwhine	21	42	NP
West Barracouta	22	46	P
Cobia 2	68	76	NP

1.5.3 Pipelines

A network of pipelines is used to transport crude oil and gas to onshore Longford Plants for processing.

Esso's offshore pipeline network comprises:

- 34 primary pipelines (~650 kilometres total length) that are licensed
- 11 secondary pipelines (~190 kilometres total length) that are not required to be licensed.

The pipelines vary in size from 65 millimetres up to 600 millimetres nominal diameter. They also vary in age, with the oldest installed in 1968 and the most recent in 2021.

Most of Esso's offshore pipeline network is in Commonwealth waters, with seven primary pipelines and one secondary pipeline extending to the shore through State waters, that is within 3 nautical miles from shore. This equates to around 790 kilometres of pipelines in Commonwealth waters and some 50 kilometres in State waters.

Within Commonwealth waters, the offshore pipeline network is in water depths ranging from approximately 25 to 30 metres where it meets State waters. The deepest point is approximately 400 metres for pipelines located almost 90 kilometres from the Victorian coastline.

1.5.4 Umbilicals

Esso's Bass Strait pipeline network is supported by eight umbilicals (spanning approximately 106 kilometres) and five short umbilicals measuring approximately 1 kilometre in total.

In the oil and gas industry, the term 'umbilical' refers to the lines used offshore between remotely operated/subsea equipment and a host platform, to enable control from the surface.

Umbilicals generally run alongside the main oil and gas pipelines and are used to support remotely operated/subsea equipment, to enable control from the surface. Umbilicals can be supplied in various configurations and are often designed to suit the exact service. For example, there are two umbilicals for the Kipper subsea production facility - an electrical umbilical and a fluids umbilical. The electrical umbilical is used to control equipment, like subsea valves, while the fluids umbilical is used to transport fluids needed to operate the equipment, such as hydraulic fluid.

1.5.5 Ancillary subsea property

Pipeline decommissioning work also includes ancillary subsea property, which is used to support, protect, and connect the pipeline network. Ancillary subsea property refers to equipment such as: anode sleds, tie-in assemblies, subsea isolation valves, flanged subsea tie-in spools, umbilical termination assemblies, pipeline end manifolds, pipeline end terminations, pipeline tow sleds, pipeline crossings, miscellaneous clamps, concrete blocks and concrete and grout mattresses and bags.

1.5.6 Onshore Reception Centre

Barry Beach Marine Terminal has been identified as the Onshore Reception Centre for transfer of removed infrastructure given its suitability and proximity to the Bass Strait fields. This minimises potential risks associated with transportation of the removed structures in open water.

Barry Beach Marine Terminal is an existing port facility, which has been part of South Gippsland's industrial precinct for over six decades and was where most of the Esso offshore facilities were constructed. Since the 1960s, it has been continuously operating as the supply depot for Bass Strait oil and gas operations.

The Terminal has the capacity, space and much of the required infrastructure to accommodate all the Campaign #1 facilities, which will be delivered over a period of approximately four months.

Qube Energy as the Terminal operator will complete the necessary work to ensure the site is ready to receive the removed structures.

1.6 Stages of activity

Esso's Bass Strait facilities are operated in accordance with defined stages of petroleum activity as shown in Figure 1-3.

1.6.1 Preparatory Decommissioning Activities

In this Report, 'Preparatory Decommissioning Activities' are described as decommissioning-related activities that fall within the Cessation of Production and Stasis Mode stages. Chapter 4 provides updates about these stages of activity.

Preparatory Decommissioning Activities are undertaken in compliance with the approved *Bass Strait Environment Plan*.

Offshore pipelines in State waters operate in accordance with the *Bass Strait State Waters Environment Plan*.

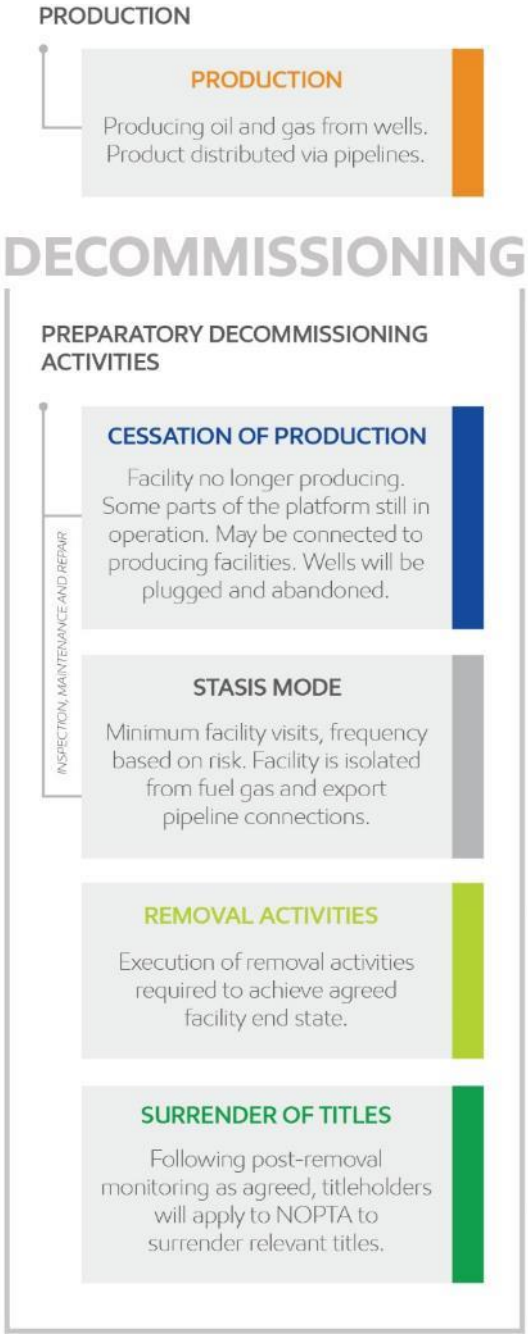


Figure 1-3: Stages of activity in the lifecycle of a facility

It can take a number of years after a facility ceases production of oil and/or gas before all Preparatory Decommissioning Activities can be completed.

Due to the high level of interconnectedness between Bass Strait facilities, some non-producing facilities may still be needed to:

- support key activities, such as pipeline inspections
- enable operations on other connected producing platforms and subsea facilities
- support inspection, maintenance, and repair activities, and/or

- prepare facilities for decommissioning, such as enabling flushing of pipelines/ umbilicals and related liquids disposal.

For these reasons, certain non-producing platform wells may be temporarily brought online, and platform systems may remain operational, for example power, air, safety systems, fuel systems, pig launcher/receivers, and cathodic protection.

Cessation of Production

The Cessation of Production stage begins when a facility no longer produces oil and/or gas, or pipelines no longer transport oil and/or gas to shore or supply other facilities with resources. There are numerous activities within the Cessation of Production stage, including:

- well plug and secure that uses a wireline rig to preserve wellbore integrity prior to plug and abandonment activities
- care and preservation, which involves the shut–in of wells before plug and abandonment activities, except in circumstances such as for the supply of fuel gas for power generation
- well plug and abandonment that involves the permanent closure of the well
- well conductor pull, where well conductors are removed either post-plug and abandonment or as part of decommissioning activities
- facility preparation activities prepare topsides and jackets for lifting; bulk removal of hydrocarbons; cleaning import and export pipelines; and any other activities required to prepare for decommissioning. This is conducted in parallel with inspection, maintenance, and repair to preserve the facility for Stasis Mode. It involves facilities that are progressively isolated from fuel gas and pipeline connections. Property that does not require the use of a Heavy Lift Vessel or specialist equipment is assessed for removal on an ongoing basis.

During this stage, pipelines are filled with treated water. Sections of risers and pipelines may also be removed in preparation for decommissioning.

Stasis Mode

In Stasis Mode, facilities and pipelines are deemed to 'not be in use, nor to be used' in connection with operations as per Section 572 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth). This indicates the facility, or pipeline is ready for decommissioning.

Platform visits are undertaken to complete inspection, maintenance, and repair activities to maintain the platform ahead of decommissioning.

Inspection, maintenance and repair

Considering a facility may continue to be considered 'in use' for some years during the Cessation of Production stage; inspection, maintenance and repair is likely to occur throughout both the Cessation of Production and Stasis Mode stages. This is required to: reduce safety and environmental risks to As Low as Reasonably Practicable (ALARP) and acceptable levels; and maintain the platform to a level that does not preclude removal as required under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth).

Inspection, maintenance and repair activities include well integrity testing, structural and corrosion control maintenance/repair as required, and checks on operating systems such as fuel gas, air compressors, crane and lifting equipment, open and closed piles, and safety systems.

Where platforms are de-staffed, periodic platform visits are conducted for operations and maintenance to support upstream platform operations and/or maintain equipment for future decommissioning activities. Platform visits may be completed during day trips, or by temporarily re-staffing the facility for days to weeks at a time.

1.6.2 Removal Activities

Speciality third party contractors will be used for removal activities to achieve the agreed end state of facilities. This includes the use of appropriate vessels, equipment and expertise to complete this work during decommissioning campaigns.

Considering the interconnectedness of Esso's Bass Strait facilities, decommissioning activities are designed to balance the decommissioning of non-producing facilities with the operational requirements of producing facilities.

1.6.3 Surrender of Titles

Following completion of Removal Activities and in agreement with the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), the Titleholders will apply to the National Offshore Petroleum Titles Administrator to surrender the relevant petroleum titles.

1.7 Status

Figure 1-4 provides a timeline showing the progression of the lifecycle stages (as shown in Figure 1-3) for each non-producing platform.

This timeline is subject to change pending decommissioning requirements. The status of all facilities and pipelines (excluding subsea wells not linked to a subsea facility or platform) as at the end of 2024 is shown in Figure 1-5.

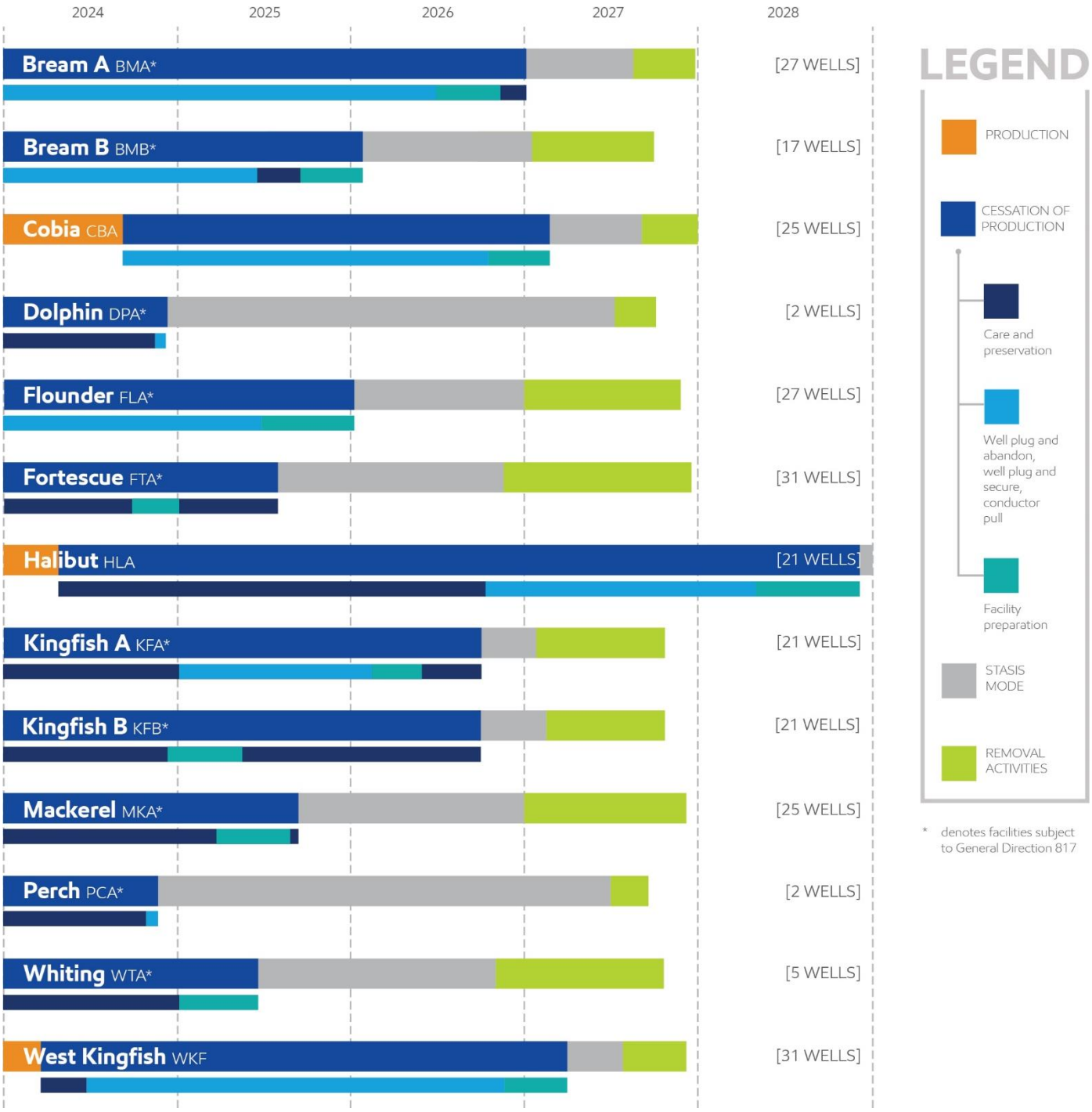


Figure 1-4: Timeline of estimated lifecycle stage progression for non-producing platforms[1]

[1] EXPLANATORY NOTE: Durations are indicative of extent of lifecycle stage, not specific activities involved in that stage, for example: The Removal Activities lifecycle stage starts November 2026 and ends December 2027 however, actual planned activities could occur over approximately eight non-consecutive weeks during this period as follows:

- <1 month in 4Q 2026: Allseas *Fortitude* executes final topsides lift preparation, including cutting/separation
- <2 weeks in 3Q 2027: Allseas *Fortitude* returns for final jacket lift preparation, including cutting/separation
- <2 weeks in 4Q 2027: Allseas *Pioneering Spirit* executes platform/jacket lifts.

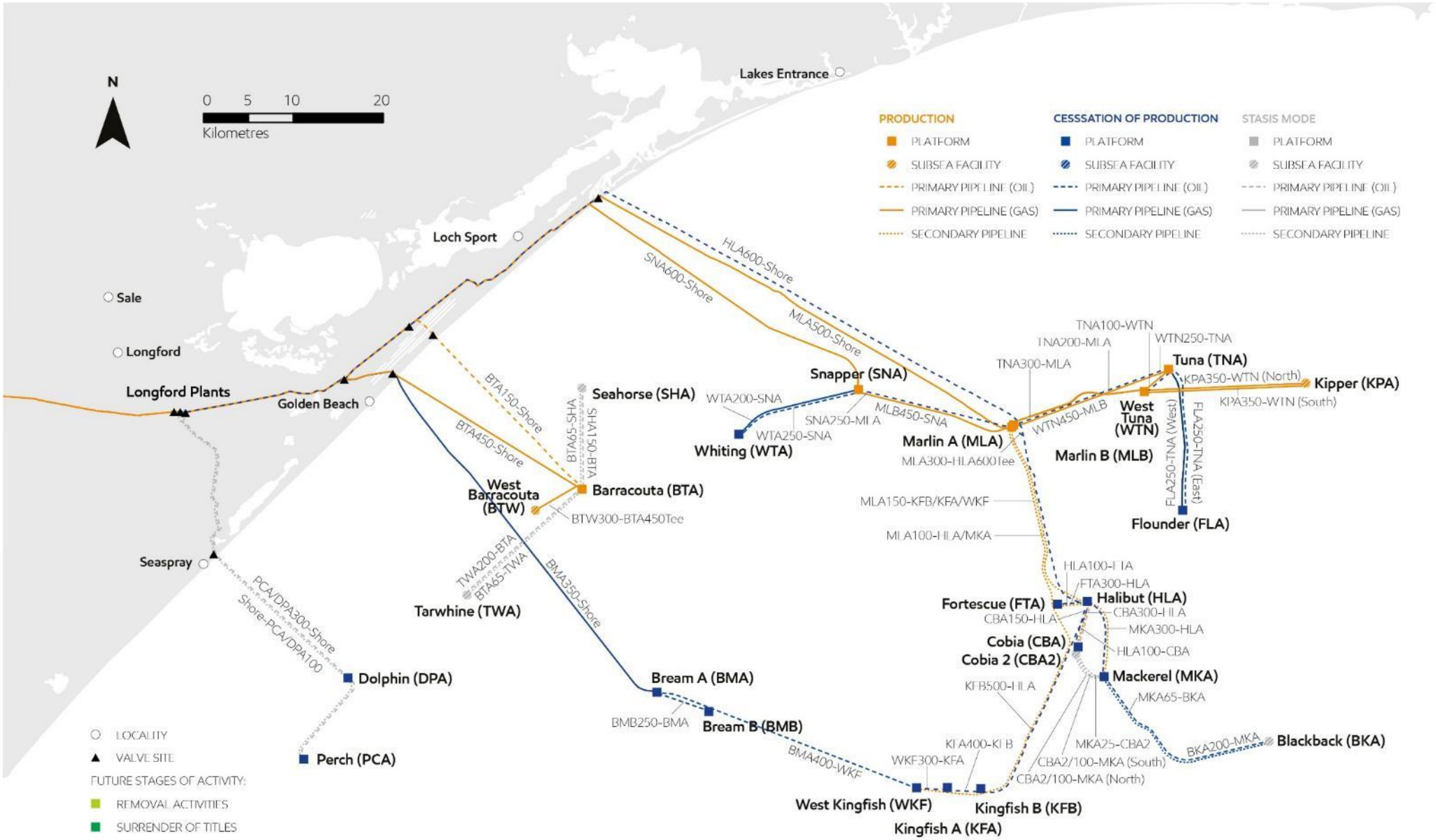


Figure 1-5: Status of facilities and pipelines as at December 2024

Cobia platform

2 Governance

Esso aims to reduce environmental impacts and comply with all applicable laws and regulations throughout every development stage. In addition to regulatory compliance, the company adheres to ExxonMobil's global standards when determining risk and considering the needs of impacted communities.

2.1 ExxonMobil standards

Esso is committed to safe and environmentally responsible operations, in accordance with its Standards of Business Conduct. Operations are managed under a disciplined risk management framework known as the Operations Integrity Management System (OIMS). OIMS supports risk management through identifying, evaluating, and controlling risks during exploration, construction, and production activities.

2.2 Relevant legislation

Bass Strait decommissioning activities are conducted in accordance with applicable Australian laws and regulations.

The principal offshore legislation is the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth), which is administered by NOPSEMA.

2.3 Environment plans

Esso conducts its Bass Strait activities in accordance with the principles of ecologically sustainable development, and approved environment plans. This complies with the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) for activities in Commonwealth waters, and the Victorian *Offshore Petroleum and Greenhouse Gas Storage Act 2010* (Vic) for activities in State waters.

2.3.1 Operations environment plans

All Esso activities in Commonwealth waters are managed in accordance with the *Bass Strait Environment Plan*, which includes the *Bass Strait Oil Pollution Emergency Plan*.

The *Bass Strait Environment Plan* was developed to comply with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth) that were applicable at the time of submission. This Plan was assessed and accepted by NOPSEMA. It is reviewed and updated every five years, with the current version publicly available at info.nopsema.gov.au/environment_plans/470/show_public.

The Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth) came into effect on 10 January 2024, revising the 2009 regulations. The five-year revision of the *Bass Strait Environment Plan* will include updates to comply with the revised regulations.

The *Bass Strait State Waters Environment Plan* was prepared for activities in State waters in accordance with requirements of the Offshore Petroleum and Greenhouse Gas Storage Regulations 2011 (Vic).

The Plan has been assessed and accepted by the Victorian Department of Energy, Environment and Climate Action.

It is reviewed and resubmitted at least every five years. The latest revision was submitted in mid-November 2023. A summary is available at resources.vic.gov.au/licensing-approvals/oil-and-gas-permits-leases-and-licences/environment-plans.

Whenever a new activity is planned that is not covered by existing environment plans, additional environment plans are developed.

2.3.2 Decommissioning-specific environment plans

Section 572 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) imposes obligations on a titleholder to remove from a petroleum title area all structures that are, and all equipment and other property that is, neither used nor to be used in connection with the operations, subject to other provisions of the Act, regulations, directions and other applicable laws.

The scope of, and activities required to, decommission such structures, equipment and property are described in decommissioning-specific environment plans that are submitted to NOPSEMA for assessment and approval. These Plans are required to demonstrate that environmental impacts and risks meet the ALARP and acceptability environment plan acceptance criteria required by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulation 2023 (Cth).

2.4 Safety Cases

For each of the Esso Bass Strait facilities and the pipeline network, Safety Cases were prepared that contained detailed descriptions of:

- the facility/pipeline network
- the formal safety assessment conducted for the facility/pipeline network
- the Safety Management System used to manage the safety of the facility/network.

All Safety Cases, and any subsequent revisions, are submitted to NOPSEMA in accordance with the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) and its regulations.

Safety Cases are reviewed at least every five years, or where any changes to work scope are proposed.

Safety Cases will be submitted for the Mobile Offshore Drilling Unit and Construction Support Vessel(s). Activities conducted by the Multi-Purpose Support Vessel will be included in an addendum to the vessel's Safety Case.

2.5 Well Operations Management Plan

Esso operates in accordance with its *Bass Strait Well Operations Management Plan* (WOMP). The Plan is appropriate for the nature of the activities to be carried out in the title area and describes the well design, construction and operation. It also details how Esso will:

- control risks associated with well operations
- satisfy requirements of Part 5 of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 (Cth)
- reduce well integrity risks to ALARP
- define performance outcomes, performance standards, and measurement criteria.

The Bass Strait WOMP is reviewed at least every five years, with the next revision scheduled for 2027.

The Multi-Purpose Support Vessel *Skandi Darwin* in Bass Strait

3 Decommissioning planning

Esso is planning to conduct safe decommissioning activities that reduce environmental impact while addressing stakeholder, regulatory, and broader community requirements.

3.1 Approach

Extensive detailed planning supported by technical, execution and environmental studies is required to safely conduct a decommissioning project of this nature and scale.

Esso is completing decommissioning planning in accordance with its OIMS so that all aspects of risk are managed through specialist skillsets, training, equipment, and contractors. It includes integrating decommissioning planning with operating facilities and providing the ability for stakeholder feedback.

An assessment has been completed of the decommissioning requirements for non-producing, and soon to be non-producing, offshore infrastructure. The assessment concluded that grouping infrastructure into three common types would enable a review of shared characteristics, environmental impacts, and removal techniques required. The infrastructure groups are:

- steel piled jackets and monotowers
- pipelines, umbilicals and associated subsea infrastructure
- concrete gravity structures.

3.2 Project management and verification

The ExxonMobil Capital Project Management System (EMCAPS) is applied by Esso to ensure a disciplined and consistent approach to the planning and execution of capital projects. Bass Strait decommissioning follows a tailored Decommissioning Project Management System (DPMS) based on EMCAPS principles.

The DPMS comprises five stages that encompass End of Field Life through to Surrender of Petroleum License or Titles. An overview of DPMS stages and objectives associated with each stage is provided in Figure 3-1.

Esso uses a 'gate' system so that the project achieves the objectives and deliverables of the preceding stage before work can progress through to the next stage. Senior management reviews are conducted with the passage of each gate.

Esso is progressing work to support Stage 3 (Define) for the first of the decommissioning campaigns. This involves engaging with NOPSEMA and the Department of Climate Change, Energy, the Environment and Water.

Discussions regarding end state assessments are ongoing, with environmental studies being undertaken as the Bass Strait Decommissioning Project progresses.

Preparatory Decommissioning Activities such as plug and abandonment, maintenance, and care and preservation are conducted independent of, but closely aligned with, the DPMS.

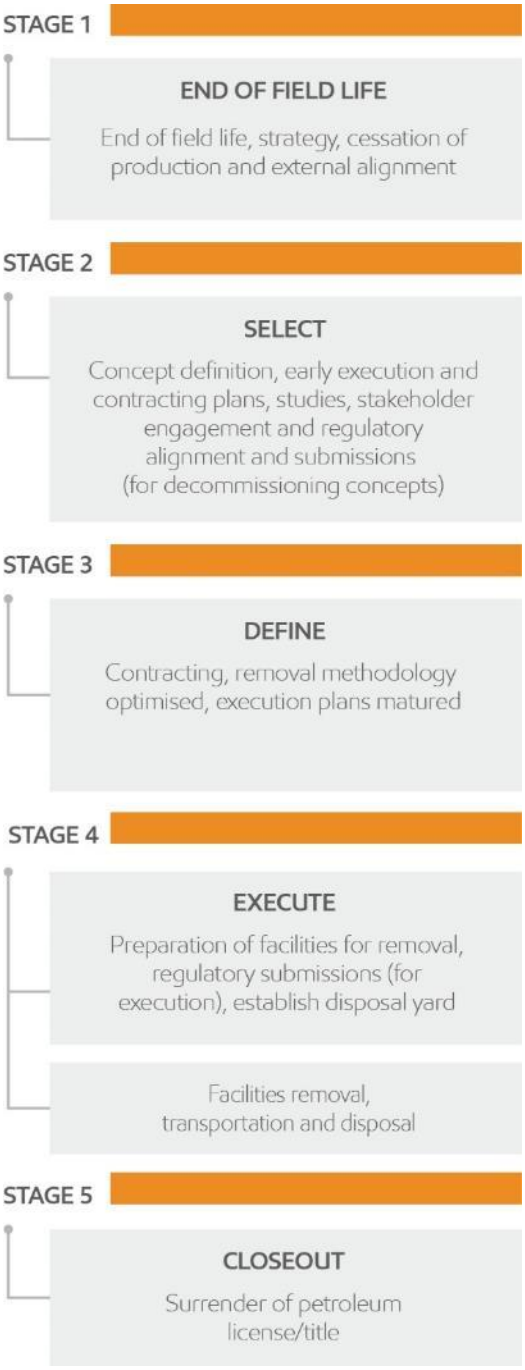


Figure 3-1: DPMS overview

3.3 Organisation of the work

The approach to decommissioning includes both Preparatory Decommissioning Activities, which are activities required to cease production and ensure the facility maintains its integrity; and Removal Activities that encompass the removal of topsides to achieve the approved facility end state, as shown in Figure 1-3.

Preparatory Decommissioning Activities are conducted in accordance with relevant Safety Cases and managed through the *Bass Strait Environment Plan*. Well plug and abandonment activities that involve the use of specific vessels, such as the *Q7000* and *Valaris 107*, require separate environment plans. Removal Activities will be managed in accordance with accepted Execution Environment Plans.

3.3.1 Preparatory Decommissioning Activities

Ongoing maintenance activities are undertaken on all non-producing platforms in accordance with the *Bass Strait Environment Plan*. This ensures safe and efficient decommissioning preparation so as not to preclude removal until final decommissioning is undertaken. Preparatory Decommissioning Activities may include:

- inspection, maintenance, and repair of facilities until final decommissioning
- preparation activities for pipeline or subsea infrastructure decommissioning (i.e. flushing, cleaning, cutting)
- opportunistically removing smaller pieces of subsea infrastructure/sections of pipelines or ancillary items
- well plug and abandonment.

3.3.2 Removal Activities

Removal Activities will be managed by aggregating facilities into decommissioning work scopes, or 'campaigns' that will involve the use of specialist vessels, such as a Heavy Lift Vessel.

The specific marine ecosystem, the size and weight of facilities, and the inherent risks of removing such facilities are among factors that are considered in Esso's decommissioning plans.

To best manage decommissioning of the Bass Strait assets, facility removal is planned to be undertaken through a number of decommissioning campaigns.

During 2024, planning for the first decommissioning campaign continued. Campaign #1 is focused on the facilities at or near the end of their producing life. The Campaign #1 scope of works includes:

- removal of topsides and jacket to as close as practicable to seabed, to a maximum of 3 metres above seabed, with deep foundation piles to remain for the Whiting platform
- removal of topsides and upper jacket sections to at least 55 metres below mean sea level, which applies to seven platforms in deeper water (Cobia, Flounder, Kingfish A, Kingfish B, Mackerel, Fortescue and West Kingfish), with a potential additional scope for Halibut

- one of two removal options for Bream A: removal of topsides and jacket, as close as practicable to seabed to a maximum of 3 metres above seabed, with deep foundation piles to remain; or removal of radio tower and flare boom only if it is to repurposed for an alternate use
- removal of topsides only for the Bream B platform, which is a concrete gravity structure
- removal of two monotower platforms (Dolphin and Perch).

The timeline for decommissioning (refer to Appendix A) has been planned and is being managed to complete all Preparatory Decommissioning Activities and commence Removal Activities as soon as reasonably practicable, and no later than 30 September 2027.

3.3.3 Marine vessel contracting

Specialist equipment is required for Bass Strait decommissioning activities. This includes a Multi-Purpose Support Vessel, Platform Supply Vessel(s), Heavy Lift Vessel and Construction Support Vessel(s).

The Multi-Purpose Support Vessel for Campaign #1 is the DOF Australia Pty Ltd-operated *Skandi Darwin*, which arrived in Bass Strait in August 2022. The *Skandi Darwin* will continue to support both topside and subsea decommissioning scopes throughout 2025.

Additional Platform Supply Vessel capacity was contracted during the year, with the *Skandi Kvitsøy* joining the fleet in the second quarter of 2024.

Following an extensive Heavy Lift Vessel contracting process, which included detailed technical, execution and commercial reviews, Esso awarded an execution contract to Allseas Marine Contractors Australia (Allseas).

The Allseas Heavy Lift Vessel *Pioneering Spirit* is expected to arrive in Bass Strait in third quarter 2027 and will undertake work scopes including final topside separation, jacket separation and topside and jacket removal. The *Pioneering Spirit* will remain in Bass Strait for approximately four months.

Allseas will also provide the *Fortitude* vessel to perform the role of Construction Support Vessel. The *Fortitude* is expected to arrive in Bass Strait in the fourth quarter of 2026 and will prepare the facilities for removal.

The Heavy Lift Vessel *Pioneering Spirit* with a removed jacket onboard

Removal Activities will require additional support vessels such as: a second Construction Support Vessel, around five transport barges and towing tugs or alternatively heavy transport vessels.

Construction Support Vessel *Fortitude*

Two Mobile Offshore Drilling Units are required to complete abandonment works on the subsea suspended exploration wells and other wells that are not able to be completed by the platform-based hydraulic workover rigs (HWT 600 and Rig 22).

Additional specialist pipelay vessel contracting may be required depending on the outcomes of technical studies being undertaken to identify the most effective method(s) to decommission pipelines in Bass Strait.

3.3.4 Facility dismantling and recycling/disposal planning

Throughout removal activity planning, Esso is prioritising the recovery of reusable and/or recyclable materials, wherever possible.

SPOTLIGHT

World's largest offshore construction vessel engaged for decommissioning

Pioneering Spirit, the largest, most versatile offshore construction vessel in the world, has been engaged for Esso's decommissioning program.

The vessel is part of the Allseas company fleet. Allseas is a world-leading contractor in the offshore energy market and has extensive expertise in the design and execution of large and complex offshore projects. The company was awarded an execution contract in January 2024 for Removal Activities in Bass Strait. The contract includes the use of *Pioneering Spirit* and *Fortitude*, which are both designed and operated by Allseas. The company was also chosen because of its safety performance and because its operations contribute to maintaining a clean environment by devising solutions such as single-lift platform decommissioning to reduce environmental impact.

Pioneering Spirit is specifically designed for the single-lift installation and removal of offshore platforms and the installation of pipelines. At the bow is a slot that enables the vessel to move around a platform and lift and transport entire topsides using horizontal lifting beams.

Built at the DSME shipyard in South Korea (2011–14), *Pioneering Spirit* commenced offshore operations in 2016. The twin-hulled vessel is capable of lifting entire platform topsides of up to 48,000 tonnes and jackets up to 20,000 tonnes in a single piece. In 2022, *Pioneering Spirit* surpassed the 330,000-tonne mark for lifted platform weight. Due to its large size and innovative design, the vessel can safely operate in most heavy seas.

Specification	*Pioneering Spirit*
Length overall	477m (1565ft)
Length between perpendiculars	370m (1214ft)
Breadth	124m (407ft)
Depth to main deck	30m (98ft)
Operating draught	10-27m
Maximum speed	14kn
Total installed power	95,000kW
Dynamic positioning system	Fully redundant, class 3 Kongsberg K-Pos DP-22 and 2 x cJoy system
Accommodation	571 persons
Deck cranes	1x special purpose crane of 5000t; 1x special purpose crane of 600t; and 3x pipe transfer cranes of 50t

Click here to watch the *Pioneering Spirit* in action removing the 30,000-tonne Gyda platform from the North Sea in 2022

The Heavy Lift Vessel *Pioneering Spirit* - the largest, most versatile offshore construction vessel in the world

SPOTLIGHT

World's largest offshore construction vessel engaged for decommissioning

Fortitude is a multipurpose offshore construction vessel, which was acquired by Allseas in 2018.

The vessel is fitted with two high-capacity active heave compensated offshore cranes (900 tonnes and 200 tonnes respectively) and moon pools for all-weather underwater remotely operated vehicle operations.

The vessel also has an enclosed ROV hangar for the deployment of two large work class deepwater ROVs, over-the-side Launch and Recovery Systems and Tether Management Systems rated to a depth of 4000 metres.

Specification	*Fortitude*
Length overall	151m (495ft)
Length between perpendiculars	144m (351ft)
Breadth	32m (105ft)
Depth to main deck	13m (44ft)
Operating draught	10m (32ft)
Maximum speed	13.9kn
Total installed power	22,380kW
Dynamic positioning system	LR DP (AAA), dual redundant Kongsberg K-Pos DP-22/12 system
Accommodation	250 persons
Deck cranes	1x offshore luffing jib crane (AHC), 900t (2000kips) at 17 m (56ft); 1x knuckle boom crane (AHC), 200t (440kips) at 10m (33ft)

Construction Support Vessel *Fortitude*

Due to the Heavy Lift Vessel's size and draft requirements, all removed components will be transferred onto barges or other heavy transport vessels for transport to the Onshore Reception Centre where structures will be offloaded, dismantled onsite then materials segregated and transported for offsite recycling or disposal. The activity area for transport of topsides and steel piled jackets is shown in Figure 3-2.

Topsides

Once removed, facility topsides will be delivered to the Onshore Reception Centre for deconstruction, which includes: make safe, survey, assess and remove hazardous materials and equipment; felling of required sections; and mechanical dismantling of the sections.

Removed sections of steel piled jackets

The jackets will go through a deconstruction process, with sections felled to ground level and mechanically dismantled into standard size pieces ready for transport offsite and recycling.

3.3.5 Waste management planning

Esso undertook further desktop and field sampling across the Campaign #1 decommissioning facilities during 2024 and a specialist industry advisor in order to map an inventory of waste data for each of the facilities. This updated data will be used by the Facility Preparation, Removals and Disposal teams for safe planning and early preparation works.

3.4 Bass Strait specific studies

Esso is conducting numerous technical, environmental, socioeconomic, safety and cost studies to support decommissioning planning.

Some of these are research-based and scientific in nature and as such, involve partnerships with academic institutions, specialist technical companies, other industry members and independent subject matter experts.

3.4.1 Decommissioning planning studies

In 2024, the Decommissioning Planning team continued undertaking technical studies to progress planning for future decommissioning activities in Bass Strait following Campaign #1. These included:

- execution assessments of methodologies for removal of pipelines and umbilicals in Bass Strait
- feasibility assessments of methodologies for removal of the two concrete gravity structures (Bream B and West Tuna)

SPOTLIGHT

Pipeline removal studies

Different pipelines require different decommissioning methods for their removal depending on the type of pipe, location of the pipe, depth of water, and the buried or unburied status of the pipe.

As such, Esso is undertaking technical studies to identify the most effective method(s) to remove pipelines. The methods being assessed are:

- cut and lift
- reverse reel-lay
- reverse S-lay.

The cut and lift method works on any diameter or length of pipeline. It involves cutting the pipeline into sections using remotely operated cutting equipment, and the sections are then recovered to a surface vessel using an onboard crane.

Reverse reel-lay is often used for smaller diameter pipelines that are not concrete weight coated. This is a reversal of the reeling installation process.

In this method the pipe is reeled onto a specialist reel vessel and is plastically deformed so that it sits on the recovery reel. The length of pipeline that can be recovered is limited by the size and capacity of the reel. Once the pipeline is on the reel it is taken to a shore-based facility and removed by reversing the process. Due to the nature of the reeling and unreeling process, it is unlikely that a rigid pipeline recovered using this method could be reused.

The reverse S-lay method is suitable for large diameter and concrete coated pipes whereby the end of the pipe is picked up and brought onto a specialist S-lay vessel. The vessel then moves along the pipeline route, stopping at a suitable point where a cut is made to remove a section of pipe.

Regardless of the removal method chosen, recovered pipeline sections will be transferred onshore for recycling, where possible, or disposal.

Example of the reverse reel-lay removal method (Source: Subsea7)

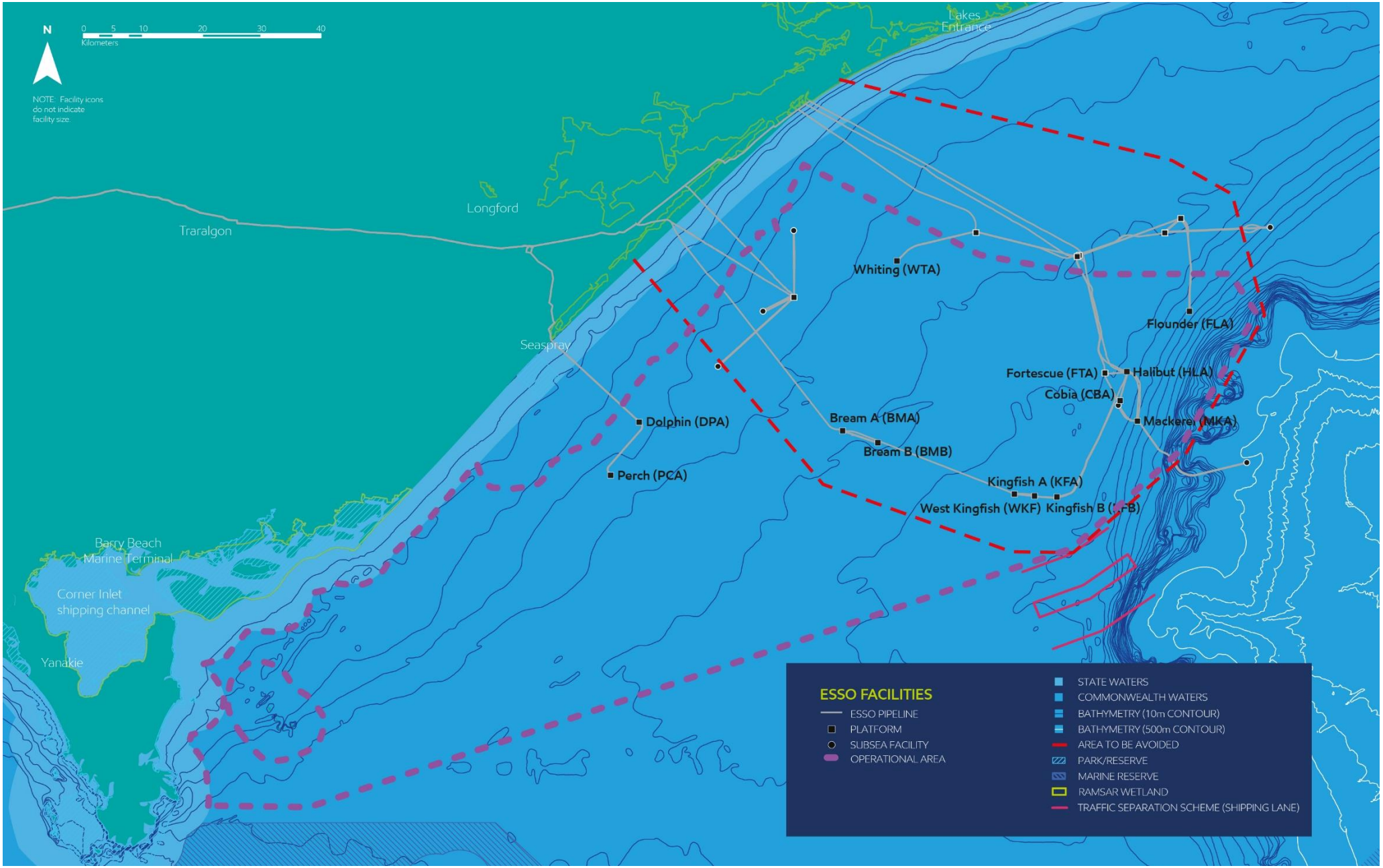


Figure 3-2: Map of Campaign #1 facilities and activity area for transport of topsides and steel piled jackets

- early preparation and planning for Campaign #2 which would involve decommissioning of the remaining platforms in Bass Strait once they are no longer producing gas.

Environmental studies to support Campaign #1 are detailed in Section 5.2.

3.4.2 Integrity assessments

Actions identified in the integrity assessment reports completed under Direction 3 (c-d) of General Direction 817 continue to be implemented and tracked to closure. None of the outstanding actions preclude the removal of the facilities.

3.4.3 Onshore Reception Centre

In addition to environmental studies, as outlined in Section 5.2, various technical studies were undertaken for the Onshore Reception Centre during the year, including: infrastructure condition studies, detailed site investigations and road traffic surveys.

3.5 Regulatory submissions and approvals

Regulatory approvals required for Bass Strait decommissioning are complex and involve several regulators because decommissioning involves both onshore and offshore facilities located across Commonwealth and State jurisdictions.

3.5.1 Environment plans

The *Gippsland Basin Decommissioning Campaign #1 Steel Piled Jackets End State Environment Plan* was submitted to NOPSEMA in December 2022. In June 2023, NOPSEMA provided feedback and following discussions with NOPSEMA, Esso has currently withdrawn this Environment Plan and is focusing on preparing an Execution Environment Plan for Decommissioning Campaign #1. This Plan is anticipated to be submitted to NOPSEMA for review in early 2025.

Esso has also submitted other environment plans to support decommissioning.

The *Gudgeon-1 and Terakihi-1 Plug and Abandonment Environment Plan* was submitted to NOPSEMA in December 2022 for the plug and abandonment of two non-producing subsea exploration wells (Gudgeon-1 and Terakihi-1).

Following several revisions to address NOPSEMA feedback, the latest version of the Environment Plan was approved in February 2024. The plug and abandonment of these wells was undertaken during May through August 2024.

The *Jack-up Rig Plug and Abandonment Environment Plan* was developed to manage the environmental impacts and risks associated with the plug and abandonment of 21 platform wells and five subsea wells. This Environment Plan was submitted to NOPSEMA in January 2024 and, following revisions, was accepted in October 2024. The jack-up rig arrived at location to begin the plug and abandonment activities in late October.

The *Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan* was revised in 2024 and issued to NOPSEMA for approval in May and following a request for further information will be resubmitted to NOPSEMA by year end 2024. This revision was made to include additional geophysical and geotechnical activities across Esso's Bass Strait activities to inform plug and abandonment activities, decommissioning, development around existing facilities and maintenance around existing facilities.

3.5.2 Decommissioning Options Assessment

Esso uses a Decommissioning Options Assessment process to identify, screen and evaluate feasible end states. Where an identified end state deviates from removal, the process is also used to determine if the proposed end states provide an equal or better environmental outcome compared to removal and if associated environmental risks and impacts are assessed to be ALARP and acceptable.

The Decommissioning Options Assessment for decommissioning the Bass Strait pipeline network continued throughout 2024.

The main focus of the year's activities was progressing technical and environmental studies required to inform decommissioning end state decision making as well as stakeholder engagement to discuss how potential options may impact stakeholder functions, interests, and activities.

Feedback from the stakeholder interactions will be discussed at Decommissioning Options Assessment workshops in 2025, and will include input from scientists, academics, and technical and environmental studies.

Outcomes of these workshops will be the agreed option(s) for pipeline end states, which will be presented in an End State Environment Plan or Execution Environment Plan that will be submitted to NOPSEMA for acceptance.

3.5.3 Safety Cases

During 2024, multiple Safety Case revisions were required and submitted to cover activities not addressed by the existing respective Safety Case.

A revision to the West Kingfish Safety Case was submitted in April to reflect a change in operational phase from Production to Cessation of Production. This Safety Case has received two Requests for Further Written Information and will be resubmitted to NOPSEMA shortly. As the Halibut and Cobia facilities have also transitioned from Production into Cessation of Production, revisions to these Safety Cases will be submitted once the revised West Kingfish Safety Case is accepted.

The Whiting Safety Case was also revised to reflect a change in operational phase into Stasis Mode and was initially submitted in November. This revision is being worked further to incorporate NOPSEMA's feedback and plans are underway for a resubmission.

The Mackerel and Fortescue Safety Cases were revised to cover activities conducted using the Multi-Purpose Support Vessel. The Mackerel Safety Case was submitted and accepted in April, while the Fortescue Safety Case was initially submitted in November. This revision is being worked further to incorporate NOPSEMA's feedback and plans are underway for a resubmission. The Safety Case for the *Skandi Darwin* vessel was also revised to support these activities with revisions accepted in March for work at Mackerel and submitted in November for work at Fortescue.

The Perch and Dolphin Safety Case was revised and accepted in October to allow the *Valaris 107* jack-up rig to complete well abandonment activities and also to reflect the change in operational phase from Cessation of Production to Stasis Mode. The Safety Case for the *Valaris 107* was revised and accepted in October to support these activities at Perch and Dolphin. It was then revised and accepted in November to enable well abandonment activities at Bream B.

The Safety Case for the Helix *Q7000* was revised and accepted in May to support plug and abandonment activities for the Gudgeon-1 and Terakihi-1 subsea exploration wells.

3.5.4 Well Operations Management Plan

Esso provides addendums to the Bass Strait WOMP on a per platform basis for platform-based plug and abandonment activities. To allow these activities, addendums to the Bass Strait WOMP have been submitted to NOPSEMA for Kingfish A well abandonment, West Kingfish well abandonment, Bream B reservoir well abandonment and Cobia well abandonment.

When a separate facility, such as a jack-up rig, is required for plug and abandonment a standalone WOMP is submitted to include the specifics of the separate facility. To allow the activity to proceed, stand-alone WOMPs have been submitted and approved by NOPSEMA during the year for Gudgeon-1 and Terakihi-1, Perch and Dolphin and Bream B well abandonments.

3.5.5 Other key regulatory approvals

Approval may be required under the *Environment Protection (Sea Dumping) Act 1981* (Cth) for in situ decommissioning. This includes leaving any part of a structure in place (both above and below the seabed).

Decommissioning of pipelines located in Victorian State waters will require approvals from the relevant State regulators, such as the Department of Environment, Energy and Climate Change. Consultation is ongoing with regulators to determine the scope and timing of these approvals.

3.5.6 Onshore Reception Centre

The activities at the Onshore Reception Centre will be managed under relevant Commonwealth and State legislation as well as contractor and site environmental management processes and plans. Site readiness works will be completed prior to any structures arriving. There will be no requirement to increase the depth or width of the shipping channels in Corner Inlet via dredging to allow transport or offloading of structures during Campaign #1.

Depending on each legislative requirement, applications may be made or advice obtained for the Onshore Reception Centre activities, including:

- Planning Permit Application (for building works) made to the South Gippsland Shire Council under the *Planning and Environment Act 1987* (Vic)
- EPBC Referral under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) made to the Department of Climate Change, Energy, the Environment and Water
- Environment Effects Statement Referral under the *Environmental Effects Act 1978* (Vic) made to the Department of Transport and Planning

- Maritime and Coastal Act Application made to the Department of Energy, Environment and Climate
- Action under the *Marine and Coastal Act 2018* (Vic).

3.5.7 General Direction 817

Esso complies with any written notice of a General Direction from NOPSEMA. This includes General Direction 817 issued under Section 574 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) in May 2021.

General Direction 817 applies to the non-producing facilities at the time of its issue. This includes Bream A, Bream B, Dolphin, Flounder, Fortescue, Kingfish A, Kingfish B, Mackerel, Perch and Whiting facilities as well as seven suspended or temporarily abandoned wells not associated with a production platform.

During 2024, Esso continued to progress open and ongoing Directions, with progress updates covered in this Report and summarised in Appendix B. A table with cross-references to progress updates provided throughout this Report, and the current status of each of the Directions of General Direction 817, is shown in Table 3-1.

In accordance with Direction 5 of General Direction 817, the progress of activities relevant to each of the Directions can be found in the Bass Strait Operations Decommissioning Reports, which have been published annually since 2021.

This *Bass Strait Operations Decommissioning Report 2024* was issued to NOPSEMA in December and will be published in early 2025.

Table 3-1: Progress update cross-reference for all Direction of General Direction 817

Direction	Section reference	Status
1a	N/A	Closed (2021)
1b	N/A	Closed (2021)
1c	N/A	Closed (2021)
2a	Chapter 4	Ongoing
2b	Section 4.1.2	Ongoing
3a	N/A	Closed (2021)
3b	N/A	Closed (2021)
3c	N/A	Closed (2022)
3d	N/A	Closed (2022)
4a	Section 4.3	Ongoing
5a	Section 3.5.7	Ongoing
5b	Section 3.5.7	Ongoing
5c	Section 3.5.7	Ongoing

The walk-to-work gangway being deployed from the Multi-Purpose Support Vessel to the Mackerel platform for completion of Preparatory Decommissioning Activities

4 Preparatory Decommissioning Activities

Non-producing facilities and surrounding environments are maintained by Esso to keep them in a safe state until decommissioning activities commence.

Esso is required to complete Preparatory Decommissioning Activities for offshore platforms before the final dismantling and removal campaign begins. This includes well plug and abandonment, cleaning, and flushing of production equipment.

In 2024, Esso completed $575 million of Preparatory Decommissioning Activities, including plug and abandonment of platform-based wells on Flounder, Bream A, Bream B, West Kingfish, Perch and Dolphin; plug and abandonment of the Gudgeon-1 and Terakihi-1 subsea wells; and commenced facility preparation on Fortescue and Kingfish B platforms. This is in addition to the $340 million of Preparatory Decommissioning Activities completed in 2023. By the end of 2024, Esso has completed almost $2 billion of Preparatory Decommissioning Activities. These activities will continue in 2025 and 2026 to enable the topsides dismantling campaign to begin before 30 September 2027.

4.1 Cessation of Production

Progress of facilities in the Cessation of Production stage is provided in the following sections.

4.1.1 Care and preservation

In addition to regular ongoing maintenance, Esso's Care and Preservation teams periodically conduct maintenance reviews so that maintenance plans for non-producing platforms and pipelines remain effective in ensuring that:

- all environmental and safety risks remain ALARP and acceptable
- structural integrity is maintained so as not to preclude removal obligations under Section 572 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth).

Refer to Section 4.3 for further information.

4.1.2 Wellwork

During 2024 wellwork activities focused on completing plug and abandonment activities for wells in the Cessation of Production lifecycle stage with more than 150 wells completed by the end of the year, as shown in Figure 4-1. This includes 134 wells covered under General Direction 817.

Plug and abandonment activities conducted in 2024 were undertaken using multiple mobile offshore assets including the Helix semi-submersible *Q7000*, *Valaris 107* jack-up rig, the Multi-Purpose Support Vessel *Skandi Darwin* and platform-based Rig 22 and HWT600.

In August the *Q7000* completed the plug and abandonment of two non-producing subsea exploration wells (Gudgeon-1 and Terakihi-1) in accordance with the *Gudgeon-1 and Terakihi-1 Plug and Abandonment Environment Plan* and WOMP.

Figure 4-1: Status of non-producing wells

In October, the *Valaris 107* jack-up rig arrived in Bass Strait to complete the scope of works outlined in the *Jack-up Rig Plug and Abandonment Environment Plan.* This includes the plug and abandonment of the Marlin-1, Whiptail-1A, Mulloway-1, Halibut-1 and East Pilchard-1 subsea wells and 21 platform-based wells at Bream B, Perch and Dolphin platforms. By the end of the year the plug and abandonment of two wells at Perch and two wells at Dolphin was completed by *Valaris 107* and the first stage of the plug and abandonment scope on Bream B wells, was performed by the *Skandi Darwin*. By the end of the year, the second stage of the plug and abandonment scope had commenced at Bream B with the full scope expected to be completed early 2026.

During the year, the HWT600 completed plug and abandonment for 13 of the wells at West Kingfish, the remaining 18 wells will be completed in 2025. The HWT600 also continued plug and abandonment activities at Bream A with 18 wells completed by the end of the year.

Rig 22 completed plug and abandonment of all 27 Flounder platform-based wells by the end of the year.

4.1.3 Facilities preparation

In August, the Facility Preparation team mobilised to the Fortescue platform to commence the full Facility Preparation scope, which includes:

- flush and drain of the topsides process systems
- electrical de-energisation
- air gapping, deconstruction and lift point installation
- shutdown of living quarters and de-staffing the platform.

In addition to the large-scale pile cleaning undertaken on Fortescue (see 'Driving innovation in decommissioning'), bulk flushing of jacket leg storage and associated caissons was completed.

Concurrently, the electrical transition to a fully de-energized state on the Fortescue platform commenced. The scope executed to date includes:

- temporary diesel generators connected to existing platforms power distribution
- Installation of energy pods to power existing impressed current cathodic protection system.

Other facility preparations completed at Fortescue during 2024 include the installation of all of the eight lifting points required for the Heavy Lift Vessel and horizontal air gapping (removal of sections of equipment, piping and structural elements) between the sub-cellar deck and sea deck to provide the necessary clearance for the Heavy Lift Vessel's removal system. The scope of work is expected to be completed, and the Fortescue platform transitioned into Stasis Mode by the second quarter of 2025.

One of the lift points installed on the Fortescue facility

The facility preparation scope commenced at Kingfish B in December.

Planning for the facility preparation scope of work at Whiting and Blackback continued during 2024 with the works expected to be executed in 2025.

4.2 Stasis Mode

During 2024, Perch and Dolphin entered into Stasis Mode. Whiting is expected to enter Stasis Mode in 2025. Blackback, Seahorse and Tarwhine, Cobia 2 subsea facilities remain in Stasis Mode.

4.3 Inspection, maintenance and repair

During 2024, inspections were completed on all non-producing facilities. Esso's Maintenance team focused on completing the 'make safe' campaign for Kingfish B, Fortescue and Bream B during the year to prepare the facilities for facility preparation activities.

SPOTLIGHT

Driving innovation in decommissioning

Esso's Decommissioning Facilities Preparation Manager, Tim Rawson, and his team have developed a range of innovative solutions to successfully complete a large-scale pile cleaning project on Campaign #1 platforms, which has commenced on the Fortescue facility. This is a critical step as part of the preparations ahead of ultimately being able to remove the facilities from Bass Strait.

Piles act as a drainage system for platforms, separating oily substances from water. Each pile can be a different size depending on the platform they support. Piles aren't normally cleaned during operations but are required to be cleaned for decommissioning to mitigate the risk of discharge into the local environment during removal and transportation operations. "This created a technical challenge for Tim and his team until they, with the help of multiple external engineering consultants, developed an effective method that involved carefully applying high pressure water to dislodge impurities using bespoke pieces of equipment. Once done, specialised pumps were used to remove the impurities from the piles, along with any residual oily water with the sole focus of minimising the environmental impact as much as possible during removal".

"Even in the early stages, preparing for decommissioning has been rewarding work. I have had a lot of operational roles in the past and now I'm excited to work with a team that is focused on excellence and finding innovating ways of doing things while still maintaining safety performance and reducing environmental risk," Tim said.

"Esso's Bass Strait platforms have a lot of history and have produced oil for Australian communities for many decades, so it is a privilege to be involved in decommissioning activities for the non-producing platforms."

A former high school maths and physics teacher, Tim had a career change in 2013 when he joined ExxonMobil as a Project Services Engineer based in Melbourne.

Within four years he was appointed as the Business Projects Lead for the Gorgon Jansz LNG Project in Perth.

Tim returned to Melbourne in 2020 and became the Lead Decommissioning Engineer for Esso's Bass Strait decommissioning. He was appointed to his current Facilities Preparation Manager role in 2023.

In addition to pile cleaning activities, lift points on the Fortescue platform have been installed in preparation for lifting operations. Further Preparatory Decommissioning Activities will continue on the Fortescue platform and are expected to be completed and the platform entered into Statis Mode by the second quarter of 2025.

Tim Rawson, Decommissioning Facilities Preparation Manager, at the Fortescue platform

The facility maintenance and inspection program has completed 47 major activities in 2024 including:

- platform above water inspections on Fortescue, Flounder, West Kingfish, Cobia and Kingfish A
- platform underwater inspections completed on Mackerel and Bream A and commenced on Halibut
- flare inspections of Kingfish B, Fortescue, Kingfish A and Cobia
- helideck inspections at West Kingfish and Kingfish B.

Structural platform above water assessments were also performed on the radio towers at Flounder, Mackerel and Bream A and flare booms at Halibut, Bream A and Fortescue. All structural repairs identified were completed.

In addition, repairs were performed on the Mackerel platform's helideck while localised repairs were completed on the West Kingfish helideck. Strengthening of walkways and truss members on Kingfish A was also successfully completed.

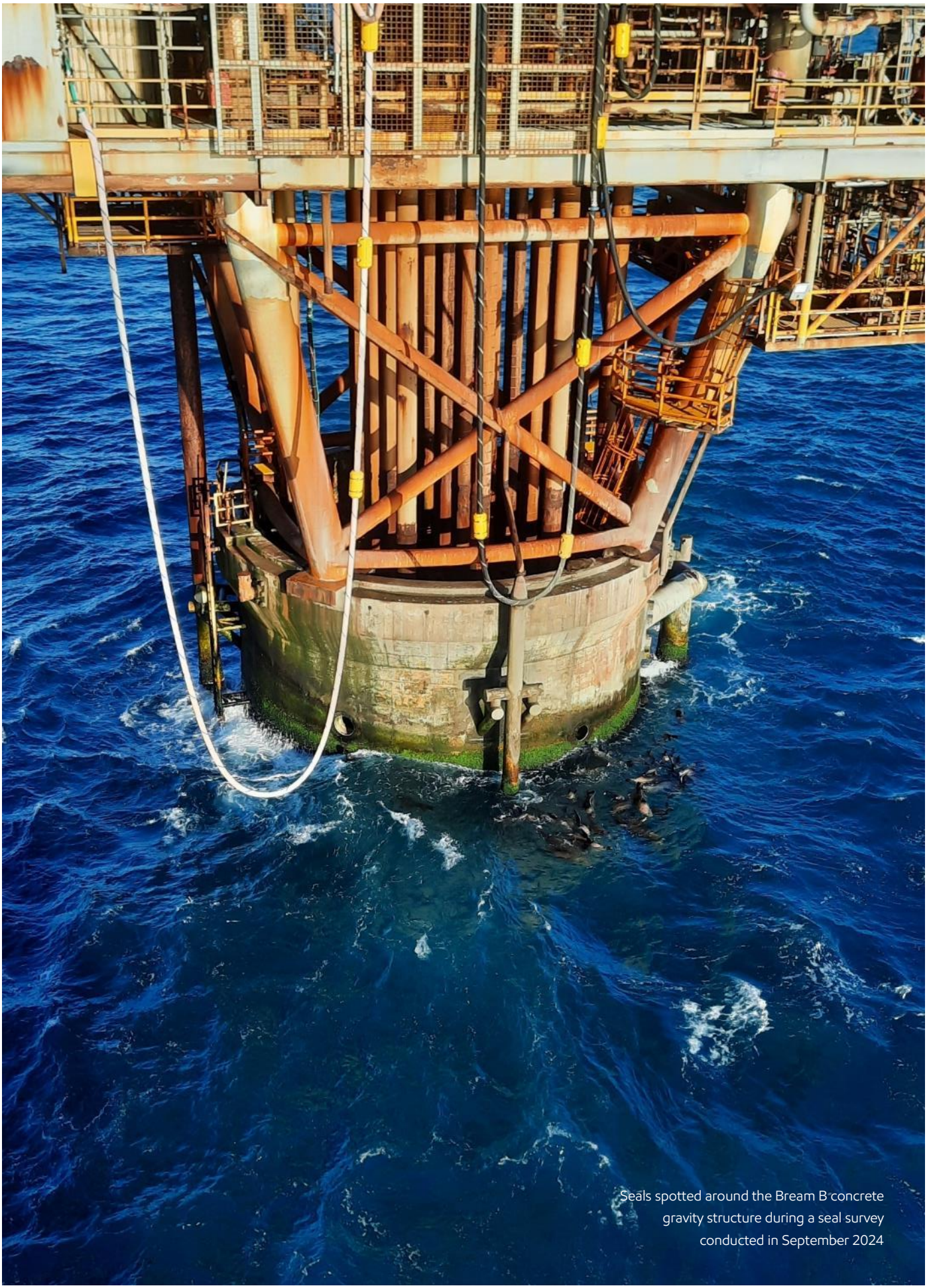
4.4 Support activities

The Multi-Purpose Support Vessel *Skandi Darwin* walk-to-work gangway landed on the Mackerel platform this year to facilitate a repair scope before being used to successfully execute the first stage of the plug and abandonment scope on Bream B wells.

The *Skandi Darwin* was also instrumental in providing detailed geotechnical information to support the safe and efficient positioning of the upcoming jack-up rig campaigns.

Using its remotely operated vehicle, the *Skandi Darwin* continues to execute survey work, which provides critical information for the decommissioning strategy.

The *Skandi Kvitsøy* joining the fleet in the second quarter of 2024, allowed the *Skandi Feistein* to complete a routine drydocking. The vessel also provides additional capacity to support platform-based rig campaigns, *Q7000* and *Valaris 107* jack-up rig activity and also allowed the *Skandi Feistein* to complete a routine drydocking. The *Skandi Feistein* will return from the dry dock to the fleet in early 2025.



Seals spotted around the Bream B concrete gravity structure during a seal survey conducted in September 2024

5 Environment

To reduce the environmental impact of decommissioning activities, Esso is involved in a process of ongoing improvement in environmental management.

Table 5-1 provides a summary of the current physical, biological and socioeconomic environments in the Bass Strait Operational Area (OA). OAs are specific to an Environment Plan and may differ for each activity.

Table 5-1: OA environments summary (source: *Bass Strait Environment Plan*)

Aspect	Summary Data
Water temp.	Maximum: 20°C Minimum: 13°C
Benthos	*Base substrate and benthic communities:* The OA is located on the flat outer shelf plain of the Twofold Shelf and overlaps an area of inshore soft sediment habitat. Environmental surveys undertaken in 2021 and 2022 indicate that the benthic habitat within the OA is predominantly sand/mud and gravel with patchy and sparse distributions of some epibenthic invertebrate species (i.e. Bryozoa, sponges). Benthic infauna largely consists of species such as crustaceans and polychaete worms. Where hard substrate or points of attachment (facilities) are present, colonisation by epifauna occurs in the form of sessile invertebrates, crustaceans, cnidarians (jewel anemone) and filter feeders such as sponges. *Subtidal rocky reefs:* South-east reef, is an area that possesses some low-relief limestone reef features and is situated in ~70 metres depth near to Fortescue, Cobia and Halibut platforms (~3 kilometres away). The OA does not include intertidal waters. *Coral:* The OA includes deeper waters throughout the continental shelf, slope and off-slope regions where soft corals may occur. Soft corals (e.g. sea fans, sea whips) typically occur as part of mixed reef environments in waters along the coast, and are only expected to be near platforms closest to the shoreline.
Fish (bony)	26 listed marine species of fish (or species habitat) may be found in the OA. Environmental surveys undertaken in 2021 and 2022 in the OA identified 93 different fish taxa (species or genus groups) in the areas surveyed, which included platforms, the South-east reef and natural areas located away from platforms.
Fish (cartilaginous)	Two listed threatened shark species (or species habitat) may occur within the OA: the Great White shark; and Whale shark. Two additional listed migratory species (Mako shark and Porbeagle shark) may occur within the OA. The OA is within a distribution Biologically Important Area for the Great White shark.

Aspect	Summary Data
Marine reptiles	Three listed threatened turtle species (Loggerhead, Green and Leatherback) may occur within the OA.
Marine mammals	27 cetacean (whale, dolphin, or porpoise) species (or species habitat), including five listed threatened whale species (Sei, Blue, Fin, Southern Right and Humpback), may occur within the OA. Sei whales and Fin whales have foraging, feeding or related behaviours likely to occur within the OA. This area intersects Biologically Important Areas for the: Southern Right whale (distribution and migration); Pygmy blue whale (foraging and distribution); and Humpback whale (migration). New Zealand fur-seal and Australian fur-seal may occur within the OA.
Plankton	Phytoplankton and zooplankton are widespread.
Seabirds	31 seabird and shorebird species (or species habitat), including 24 listed threatened species, may occur within the OA. This area intersects foraging Biologically Important Areas for: Antipodean albatross, Black-browed albatross, Buller's albatross, Campbell albatross, Indian yellow-nosed albatross, Shy albatross, Wandering albatross, White-capped albatross, Common diving-petrel, White-faced storm-petrel, Flesh-footed shearwater and Short-tailed shearwaters.
Conservational interests	*Environment Protection and Biodiversity Conservation Act 1999* (Cth) species listed as V (Vulnerable), E (Endangered) or CE (Critically Endangered) include: • Fish (bony): Australian grayling (V) (typically inhabits estuarine waters and coastal seas) • Fish (cartilaginous): Great White shark (V), Whale shark (V) • Marine mammals: Sei whale (V), Blue whale (E), Fin whale (V), Southern Right whale (E), Humpback whale (V) • Marine reptiles: Loggerhead turtle (E), Green turtle (V), Leatherback turtle (E) • Seabirds: Antipodean albatross(V), Southern royal albatross (V), Wandering albatross (V), Gibson's albatross (V), Northern royal albatross (E), Sooty albatross (V), Buller's albatross (V), Northern Buller's albatross (V), Shy albatross (V), Grey-headed albatross (E), Chatham albatross (E), Campbell albatross (V), Black-browed albatross (V), Salvin's albatross (V), White-capped albatross (V), White-bellied storm-petrel (V), Blue petrel (V), Southern giant petrel (E), Northern giant petrel (V), Gould's petrel (E), Curlew sandpiper (CE), Red knot (E), Eastern curlew (CE), Australian fairy tern (V), Fairy prion (southern) (V) There are no World Heritage sites, natural listed places, indigenous listed places, Australian Marine Parks or National Parks and Reserves within the OA.
Commercial fishing	Commercial fishing occurs in Commonwealth waters along the continental shelf and the upper continental slope. Commercial fishing is not permitted within the platform petroleum safety zone, however, six Commonwealth-managed fisheries have management areas that intersect the OA of the pipelines. These are: Bass Strait Central Zone Scallop; Eastern Tuna and Billfish Fishery; Small Pelagic Fishery; Southern and Eastern Scalefish and Shark Fishery; Southern Bluefin Tuna Fishery; and Southern Squid Jig Fishery. There are also three Victorian State-managed fisheries with management areas that extend into Commonwealth waters. Given the water depth in the OA, the only commercial fisheries that may be present within the OA of the pipelines are: Giant Crab Fishery; Rock Lobster Fishery; and Octopus Fishery. There are no State-managed aquaculture sites within the OA.
Shipping	In accordance with Schedule 2 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) administered by NOPSEMA, an Area to Be Avoided has been established to exclude unauthorised vessels greater than 200 tonnes or 24 metres length from entering the area around the Bass Strait platforms. A traffic separation scheme operates to the south of the Area to Be Avoided to control coastal shipping.
Nearest oil and gas activities	Esso facilities and activities are the only oil and gas activities undertaken within the OA.
Recreational activity	Recreational fishing may occur within the OA. Most recreational fishing typically occurs in nearshore coastal waters (shore or inshore vessels) and within bays and estuaries. Recreational fishing activity is expected to be minimal in the OA. Marine-based recreation and tourism is unlikely to occur within the OA due to the distance from the shore and lack of seabed features; however, presence is possible.
Wrecks	There are no historic heritage shipwrecks within the OA. The closest are approximately 5 to 10 kilometres from Esso's facilities. These include: the Struan Sailing Vessel, Favourite Sailing Vessel, Talark and Leven Lass.

5.1 Environmental management

Esso manages environmental aspects relating to the Bass Strait Decommissioning Project in accordance with the *Bass Strait Environment Plan to*:

- comply with applicable legislation
- evaluate environmental impacts and risks of proposed decommissioning activities
- define Environmental Performance Outcomes and Standards, as well as the measurement criteria required to manage impacts and risks that are identified
- outline control measures to be used to reduce environmental impacts and risks to ALARP and acceptable levels
- provide details of the systems, practices, and procedures to ensure environmental risks, impacts and identified control measures are implemented to achieve ALARP and acceptable levels so that Environmental Performance Outcomes and Environmental Performance Standards are achieved.

5.2 Environmental studies

To support preparation of the Execution Environment Plan for Decommissioning Campaign #1, Esso undertook the following environmental studies during the year:

- underwater noise modelling and assessment
- potential oil spill modelling
- a desktop study to identify, analyse and assess estimated scope 1, 2 and 3 greenhouse gas emissions, as well as other air emissions
- sediment dispersion modelling for activities requiring sediment movement for removal or assessment of facilities
- light emissions modelling and potential impact assessment
- invasive marine species risk assessment
- monitoring of fur seal habitat use around offshore platforms.

Environmental studies being undertaken for the Onshore Reception Centre during the year include:

- terrestrial ecology
- cultural heritage assessment
- marine water quality monitoring
- terrestrial noise and vibration
- shorebirds and waders
- benthic habitat and marine ecology
- bushfire assessment
- flood assessment
- odour assessment
- visual amenity.

Environmental studies undertaken to support pipelines decommissioning during the year include:

- analysis of sediment samples near and around pipelines to characterise sediments
- analysis of the remotely operated vehicle (ROV) visual footage of on and off-pipeline areas to characterise ecology on pipelines versus reference sites
- execution of near shore habitat assessment along areas of 90 Mile Beach
- fate and transport modelling and environmental impact assessment of pipeline materials
- sampling and analysis of pipeline materials
- pipeline coatings analysis
- cumulative affects analysis of decommissioning activities in Bass Strait.

Leveraging our highly skilled and capable workforce

6 People

Decommissioning activities are led and implemented by an experienced and qualified Esso team that complies with industry leading plans and procedures to maintain the health and safety of workers.

6.1 Workforce

Decommissioning Esso's offshore facilities is a complex activity that will provide employment opportunities for many years to come.

The Bass Strait Decommissioning Project has a fully staffed, dedicated team engaged to lead the extensive, challenging work that is involved in decommissioning non-producing offshore facilities. This team of professionals, operating under the Australia Major Projects organisation as shown in Figure 6-1, collectively has more than 375 years of experience in large-scale oil and gas industry projects.

The offshore workforce will comprise mostly Australian labour with specialist support from around the world for specific vessels and specific decommissioning activities.

It is expected the onshore workforce will come principally from the Gippsland region and other parts of Victoria.

More than 600 people have been engaged in 2024 for plug and abandonment works, with a further 100 people employed for care and preservation work including inspection, maintenance and repairs.

During decommissioning, up to 500 people will be employed for activities ranging from survey work to subsea activities and heavy lift operations.

In addition, approximately 50 people at peak will be engaged for Onshore Reception Centre Early Works (site readiness). Following this, a peak of 75 to 100 jobs are expected to be created for dismantling and recycling activities. Detailed plans are being developed for these activities.

Figure 6-1: Bass Strait Decommissioning Project organisational chart

Esso has a comprehensive Inclusion and Diversity Strategy.

Numerous Employee Resource Groups support the Strategy and include the:

- Women in Energy Network that supports the professional and personal growth of females
- PRIDE Australia Chapter, which stands for People for Respect, Inclusion and Diversity of Employees
- ABLE Network, which stands for 'A Better Life for Everybody'. It aims to connect people with a disability, or who care for people with a disability, as well as raises awareness and understanding of disability within the workplace.

Workforce health and safety

Esso has industry leading health and safety plans, procedures, programs and initiatives in place to protect the health and safety of workers throughout the decommissioning program. This includes providing all workers with appropriate training in health and safety topics.

Emergency preparedness

Plans and procedures are in place so that Esso workers can appropriately respond to emergency events such as natural disasters, pandemics, and operational incidents. Each facility and business unit has access to resources and trained personnel who can respond to any size or severity of event. Emergency response and incident management teams continually develop and practice procedures so that Esso can provide a robust response in emergency situations to protect the safety of people and the environment.

As well as emergency response arrangements, controls are in place across all Bass Strait facilities to prevent spills and to limit the potential environmental impact should they occur. These controls are documented in Esso's Oil Pollution Emergency Plan submitted to NOPSEMA.

Emergency response scenario exercises are regularly conducted to maintain response readiness. These exercises may include participation from government agencies. The roles and responsibilities of Esso and other stakeholders involved in a spill response are documented in the Oil Pollution Emergency Plan.

Esso engages with State government departments relevant to emergency response including the Victorian Environment Protection Authority and the Victorian Department of Transport and Planning.

Fishing vessels at Lakes Entrance

7 Stakeholder engagement

Esso is actively engaging with stakeholders throughout the decommissioning process to maintain informative, inclusive, and timely engagement that builds stakeholder confidence in the company and decommissioning activities.

Esso has consistently engaged with stakeholders and established strong relationships over more than 50 years to build a solid foundation for ongoing engagement throughout the life cycle of the Bass Strait facilities.

7.1 Stakeholder engagement framework

Esso, through its stakeholder engagement framework, aims to keep government, non-government organisations and community stakeholders informed about the progress of decommissioning activities. As part of this process, stakeholders are consulted on an ongoing basis about matters that impact them. Esso's stakeholder engagement framework involves:

- providing meaningful information in a format and language that is readily understandable and tailored to the needs of stakeholders
- providing timely and easily accessible information to stakeholders
- establishing two-way dialogue and clear reporting mechanisms so stakeholders have their issues heard and addressed
- inclusiveness in representation, particularly for minority and special interest groups
- ensuring feedback is incorporated into decommissioning program design.

Esso maintains ongoing consultation throughout the decommissioning process with relevant persons identified in local communities, government agencies, and non-government organisations to share information, receive feedback and respond to any concerns.

Activity-specific consultations are conducted with relevant persons identified in accordance with Regulation 25(1) of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023* (Cth). General engagements are also undertaken with other stakeholders. Esso's consultation methodology is outlined in detail in each environment plan submission. Esso's decommissioning-specific consultations aim to:

- help stakeholders understand Esso's operations and proposed end states and removal activities
- learn what participants consider important in the process
- enhance existing stakeholder relationships and establish new relationships.

7.2 Collaboration

Esso works collaboratively with industry, government agencies and communities to address challenges and maximise the opportunities of decommissioning Australia's aging oil and gas infrastructure.

Esso remains actively engaged with the Centre of Decommissioning Australia through both the Operator Priority Committee as well as the Industry Advisory Committee. Esso is a contributing member of the Centre of Decommissioning Australia, which was established in March 2021 by National Energy Resources Australia.

7.2.1 Offshore wind industry

In December 2022, the Minister for Climate Change and Energy declared the offshore Gippsland area in Victoria (Commonwealth area only) as suitable for offshore electricity infrastructure. This declaration does not grant exclusive rights to use the area. As of July 2024, the Australian Government has granted 12 feasibility licences for offshore wind projects off Gippsland's coast in Victoria, as shown in Figure 7-1.

Esso has begun consultation to establish if these offshore wind energy developers' feasibility stage functions, interests and activities have the potential to be affected by decommissioning activities. Esso continues to engage regularly with the licence holders, particularly those surrounding Esso's operations, to provide updates on offshore activities.

7.3 Government engagement

Esso regularly engages with Federal and State government agencies to keep them informed of the progress of decommissioning activities.

As part of the consultation methodology, regulatory pathways are mapped and relevant stakeholders across all levels of government are identified.

Esso conducts regular engagements with identified government stakeholders through both face-to-face and online meetings to understand their concerns (if any) and work to develop appropriate plans.

7.4 Community engagement

Decommissioning planning involves working with stakeholders to identify solutions that balance environmental needs with community and regulatory requirements.

During 2024, Esso recorded over 6500 individual engagements with stakeholders. Of these engagements, over 5500 directly related to decommissioning activities and included:

- decommissioning of Campaign #1 Steel Piled Jackets
- end state options for pipeline decommissioning
- well plug and abandonment of two exploration wells (Gudgeon-1 and Terakihi-1) using *Q7000*
- well plug and abandonment campaign using *Valaris 107*, Rig 22 and HWT 600
- revision of the *Bass Strait State Waters Environment Plan*
- revision of the *Gippsland Basin Geophysical and Geotechnical Investigations Environment Plan.*

The number of engagements conducted in 2024 was higher compared to 2023, which reflects the increase in decommissioning planning activities and associated regulatory submissions.

7.4.1 Activity-specific consultation

Campaign #1 stakeholder engagement forums were held on 4 June at Sale, 8 August at Port Welshpool and online on 5 June. All stakeholders were invited to attend.

Forums were facilitated by Esso's Australia Major Projects team, the Decommissioning Project Manager, Esso's Consultation team, and the Environment and Regulatory team.

Each forum included a presentation that covered:

- an overview of Esso's operations
- the facility lifecycle
- Esso's approach to decommissioning
- details of vessels involved in Campaign #1
- information on transfer locations
- recycling and disposal plans
- an outline of impacts and risks associated with Campaign #1
- an overview of the regulatory process.

During these Campaign #1 forums, more than 80 people from across a range of different backgrounds took the opportunity to learn more about what was being considered to decommission the Esso platforms, ask questions and hear from each other about the potential risks and impacts of options being considered and how these could be managed.

Discussion topics raised by participants included:

- opportunities to increase decommissioning activities transferable skills and job capacity

Figure 7-1 Victoria's offshore wind zone

SPOTLIGHT

Pipeline network stakeholder forums

As part of planning for decommissioning the Bass Strait pipeline network, stakeholders were invited to forums in late 2023 to learn more about potential end state options and the criteria being considered to assess these options.

The forums provided an opportunity for early consultation with interested stakeholders to help build an understanding of risks, benefits and impacts of pipeline decommissioning options and how these might affect their functions, interests and activities.

Stakeholders from the fishing sector, environmental and community groups, government (State and Local), renewable energy, carbon capture and storage, First Nations, unions, the water sector, individuals, research institutes, and business shared their knowledge at these forums.

From the forums and subsequent screening workshop, Esso has identified the following end states to progress to concept:

- reuse for other offshore operations
- removal to shore
- partial removal
- leave in situ (buried or unburied)
- trench below seabed
- combinations of above.

Further work is being undertaken to understand the long term marine ecological risks, impacts and benefits of the end states, as well as the short and long term cultural and socio-economic impacts, such as healing of Sea Country, further disturbance to Sea Country and the cultural significance of shoreline.

Pipeline network stakeholder forum in Sale

- clarification of removal campaign activity details, such as offloading operations at Barry Beach and vessel exclusion zones
- feedback on potential impacts and risks of removal campaign activities, such as disturbance to established ecosystems on jackets, residual debris presenting a snag risk, displacement of seals and seabirds
- feedback on potential controls associated with these impacts and risks – provision of navigational aids, regular notifications
- benefits of leaving infrastructure in situ - retain established marine ecosystems and provide recreational fishing opportunities
- potential impacts (positive and negative) on tourism and local businesses
- sharing of research associated with infrastructure removal and/or leaving in situ.
- Corner Inlet seagrass monitoring opportunities.

In addition, dedicated forums were held with specific stakeholder groups including:

- commercial fishing stakeholders on 27 May at Lakes Entrance and 19 June at Port Welshpool
- recreational fishing stakeholders 17 July at Aspendale.

Throughout 2024, Esso published multiple information bulletins about its decommissioning activities, including:

- Decommissioning Campaign #1 Project Update (March 2024)
- Decommissioning Campaign #1 – Environmental impacts and risks (June 2024)
- Decommissioning Campaign #1 – Impacts and risks update (September 2024)
- Jack-Up Rig - Well Plug and Abandonment (July 2024)
- Gippsland Basin Geophysical and Geotechnical Investigations - Environment Plan Revision (March 2024)
- Victorian State Waters – Pipeline Operations (October 2024).

All information bulletins are available on the Esso Consultation Hub.

Members of Esso's Australia Major Projects team and Esso's Consultation team also attended community sessions held by Qube Energy (Terminal operator of the Barry Beach Marine Terminal) in the Corner Inlet area to provide information on Campaign #1 activities.

7.4.2 General engagement

Esso hosted 19 community information sessions in the local areas during 2024 including Lakes Entrance, Sale, Leongatha, Yarram, Welshpool, Foster, and. Golden Beach. These community information sessions were advertised on community noticeboards and in national, state and local news outlets including:

- East Gippsland newspapers: *Lakes Post, Bairnsdale Advertiser* and *Snowy River Mail*
- Central Gippsland newspapers: *Latrobe Valley Express, Gippsland Times* and *Maffra Spectator*
- South Gippsland newspapers: *South Gippsland Sentinel Times, South Gippsland Voices, Prom Coast News, Foster Community Online* and *The Bridge*
- State (Victoria) newspaper *Herald Sun*
- National newspapers: *The Australian* and *Koori Mail.*

Each community information session included discussions about Esso's operations and decommissioning programs.

During the course of the year, the format of the sessions evolved to include formal presentations covering:

- Decommissioning overview – Esso's facilities in Bass Strait and the lifecycle of facilities from Production to Surrender of Title.
- Regulatory process – Legislation and regulations under which Esso operates, regulatory submissions and approvals for decommissioning activities, the Campaign #1 regulatory timeline and near-term regulatory submissions.
- Preparatory Decommissioning Activities - Works required to cease production, ensure the integrity of the facility is maintained and prepare the facility for removal. This included information on vessels, operation areas, and impacts and risks.
- Removal Activities – Works that encompass the removal of facilities to achieve the approved facility end state. This included information on different types of facilities, vessels, operation areas, transfer and impacts and risks.
- Onshore Reception Centre – Proposed location, history of use, current and proposed facilities, preparation and dismantling works, waste management, and impacts and risks.
- Future decommissioning campaigns, including pipelines.
- Stakeholder consultation details.

Decommissioning-specific discussion topics raised by participants included:

- regulatory-related topics such as regulatory approvals processes, where to find regulatory submissions, the regulatory pathway and onshore regulatory processes
- removals-related topics such as jacket structure composition, approach to jacket cutting, the pipeline flushing process, remaining structures, methodology for proposed end states and learnings from other decommissioning projects
- an outline of the plug and abandonment process addressing how wells are sealed, how successful the methods are, Esso's experience, post-abandonment monitoring and testing processes
- Onshore Reception Centre-related topics such as why the Barry Beach Marine Terminal was selected, how removed structures will be accommodated, site boundaries, applicable legislation, transport impacts, recycling and disposal options, and impacts on the nearby areas
- environmental-related topics such as marine noise, impact on whales, washout discharges, light impacts, lifespan of cement used in plug and abandonment, external studies, fate of marine ecosystems established on structures and concerns of environmentally focussed non-government organisations.

Other general topics of discussion involved:

- employment and staffing levels
- advertising and consultation input once regulatory submissions are made
- Esso's anticipated community concerns.

Esso's Consultation team also held regular scheduled meetings to provide updates to specific stakeholders. This included:

- Monthly meetings with the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) – The content of monthly meetings is agreed between Esso and GLaWAC attendees and included sharing of information related to: offshore decommissioning activities, onshore decommissioning-related activities and Preparatory Decommissioning Activities such as plug and abandonment of wells and wastewater treatment. Follow-up communications are made via phone and email between scheduled meetings.
- Quarterly meetings with commercial fishing representatives – Both face-to-face and online meetings provided Campaign #1 activity-specific information such as the activity description, location, impacts and risks and provided opportunities for participant feedback.
- Bi-annual meetings with Union representatives - These meetings specifically focused on decommissioning plans and job opportunities, with the unions expressing interest in the broader decommissioning project.

In March and April, Esso staffed a booth and engaged with a wide variety of community members at the Sale Music Festival and Air Show in West Sale.

Further information

For further information, please contact our stakeholder engagement team at:

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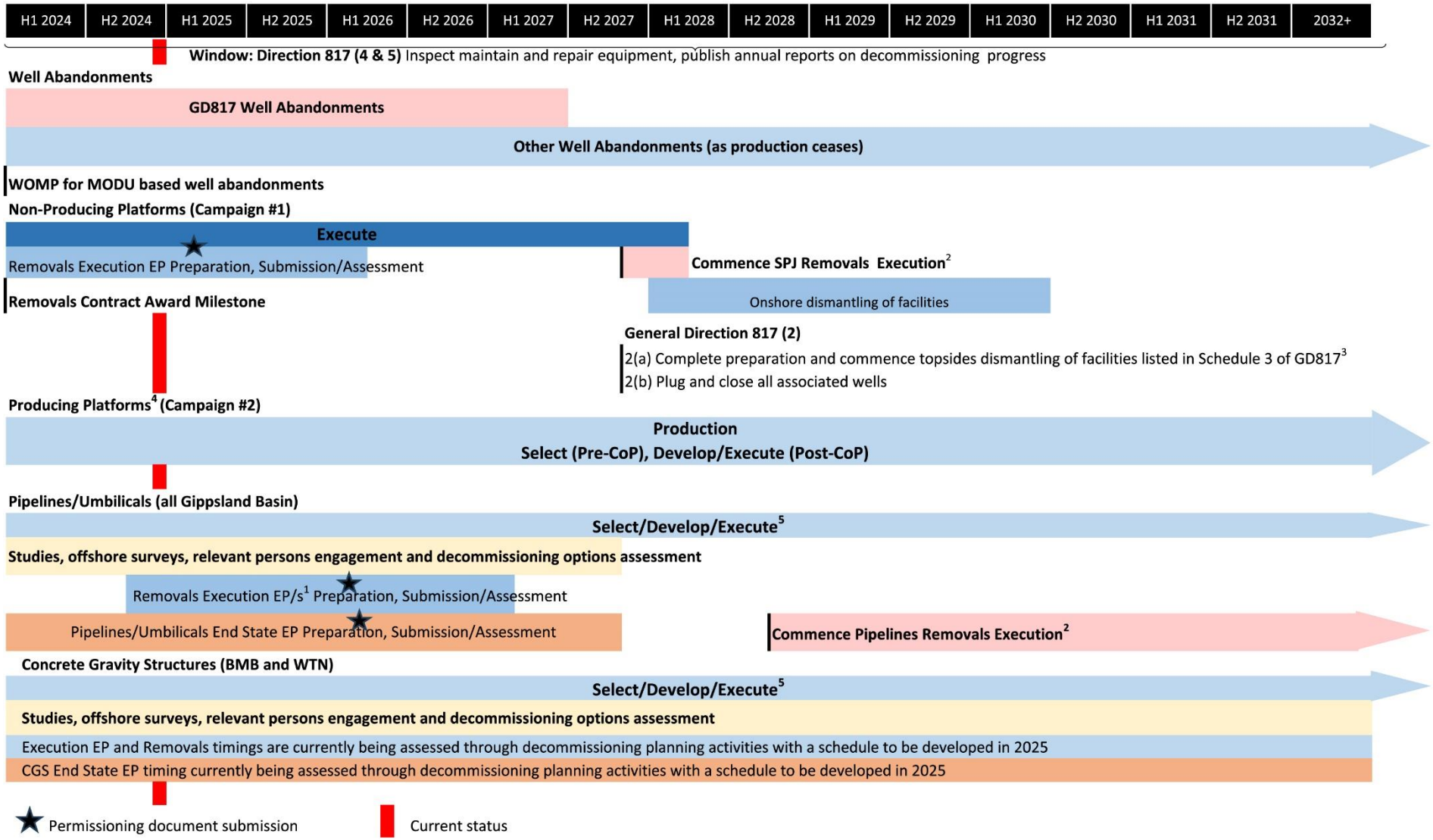
Acronyms

Acronym	Definition
ALARP	As Low As Reasonably Practicable
DPMS	Decommissioning Project Management System
EMCAPS	ExxonMobil Capital Project Management System
Esso	Esso Australia Resources Pty Ltd
km	kilometre
m	metre
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
OA	Operational Area
OIMS	ExxonMobil Operations Integrity Management System
WOMP	Well Operations Management Plan
Woodside Energy	Woodside Energy (Bass Strait) Pty Ltd

Appendix A

Indicative timeline: Decommissioning milestones and direction



Note 1: The scope of the Removals Execution EP/s may be partial or full removal. The submission/assessment timing for the Removals Execution EP/s will be reviewed and updated once sufficient technical scope is available and/or following contract award for Removals Contract.

Note 2: Removals start date provided is the latest commencement date, actual date may be earlier .

Note 3: Facilities listed in Schedule 3 of GD 817 are WTA, MKA, FTA, KFA, KFB, FLA, BMA, BMB, DPA and PCA (as depicted in Figure 1-5).

Note 4: As depicted in Figure 1-5, producing facilities are TNA, MLA, MLB, BTA, SNA and WTN.

Note 5: Final decommissioning timing will be informed by completion of studies and is subject to Regulator assessment/acceptance. Current planning basis is removal of all assets not suitable for in-situ decommissioning to occur at the end of field life.

Appendix B
General Direction 817 progress summary

General Direction 817 Direction		Key work plan items	2024 progress	Look ahead next 12 months
1a	Commission an independent and suitably qualified body to complete a review of the engineering and project management approach to decommissioning activities to identify opportunities and propose measures to reduce the timeframe for commencing and subsequently completing all necessary decommissioning activities.	Commission independent report and implement reasonable and practicable measures	Review completed and two reports submitted to NOPSEMA in 2021	Direction closed on 8 December 2021
1b	Submit a report to NOPSEMA within 180 days from the date this direction is signed, detailing the outcomes of this review and recommended measures.	Submit report to NOPSEMA		
1c	Implement reasonable and practicable measures based on the review and recommendations that would likely reduce the timeframe for commencing and completing all necessary decommissioning activities.	Implement reasonable and practicable measures that would likely reduce the timeframe for commencing and completing all necessary decommissioning activities		
2a	Complete all preparatory decommissioning activities and commence the topside dismantling campaign as soon as reasonably practicable, and no later than 30 September 2027, for removal of all structures, property, and equipment no longer in use that are associated with facilities listed in Schedule 3.	Regulatory compliance for all activities	Completed regulatory compliance submissions	Continue to complete regulatory compliance submissions
		Contract specialist removals contractor to complete removal and disposal of offshore assets	Facility preparation and removals contracts awarded. Ongoing planning and preparation for the Removal Activities phase	Ongoing planning and preparation for the Removal Activities phase
2b	To plug or close, to the satisfaction of NOPSEMA, all wells associated with the titles listed in Schedule 3, as soon as reasonably practicable and no later than 30 September 2027.	Plug and abandon all wells associated with assets noted in GD 817	Mackerel, Kingfish B and Fortescue plug and abandon campaigns completed in 2023. Flounder, Perch, Dolphin, Gudgeon and Terakihi plug and abandon campaigns completed. Bream A, Kingfish A, Bream B plug and abandon campaigns underway	Complete plug and abandonment for Bream B, Mulloway 1, Whiptail 1, East Pilchard 1, Halibut 1 and Marlin 1, and continue progress on Kingfish A and Bream A plug and abandonment campaigns
		Well Operations Management Plan for Well Abandonment	Revision finalised in December 2022	Next revision due December 2027

General Direction 817 Direction		Key work plan items	2024 progress	Look ahead next 12 months
3a	Conduct an integrity assessment of all equipment, structures and property associated with the Perch and Dolphin facilities located within titles VIC/L15 and VIC/L17, to demonstrate that full removal of structures, property and equipment will not be precluded.	Complete Perch and Dolphin integrity assessments	Perch and Dolphin integrity assessments completed	Direction closed on 28 September 2021
3b	Provide a preliminary report on the outcomes of the integrity assessment of Perch and Dolphin facilities to NOPSEMA within 90 days from the date of this direction is signed, and a detailed report no later than 31 January 2022.	Submit reports to NOPSEMA	Three reports submitted to NOPSEMA on 16 August 2021	Direction closed on 28 September 2021
3c	Conduct a separate integrity assessment of all equipment, structures and property, other than those identified at Direction 3(a) that are in a non-producing state, within the titles listed in Schedule 3, to demonstrate that full removal of structures, property and equipment will not be precluded.	Complete remaining facility integrity assessments	Facility integrity assessments completed	Direction closed on 10 March 2022
3d	Provide a report on outcomes of the integrity assessment conducted as required under Direction 3(c) to NOPSEMA as soon as practicable and no later than 31 January 2022.	Submit reports to NOPSEMA	Nine reports submitted to NOPSEMA on 31 January 2022	Direction closed on 10 March 2022
4a	The registered holder must undertake inspection, maintenance and repair activities on all property and wells associated with facilities listed in Schedule 3 to ensure: i. property continues to perform its intended function, which in the case of non-producing facilities includes preparation for (or support of) decommissioning activities as well as supporting other facilities which may still be producing hydrocarbons; ii. approved decommissioning end states are not precluded; and iii. occupational health and safety, structural integrity, well integrity and environmental risks continue to be reduced to ALARP.	Continue to implement the following established requirements across all assets: • Facility Integrity Management System • Well Operations Management Plan • Offshore asset Safety Cases Conduct platform maintenance review workshops throughout 2023	Facilities integrity management: • Actions identified in the integrity assessment reports completed under Direction 3 (c-d) of General Direction 817 continue to be implemented and tracked to closure • Completed platform above water inspections on Fortescue, Flounder, West Kingfish, Cobia and Kingfish A • Platform underwater inspections completed on Mackerel and Bream A and commenced on Halibut • Completed flare inspections of Kingfish B, Fortescue, Kingfish A and Cobia • Completed West Kingfish and Kingfish B helideck inspections. • Inspections did not identify any issues that would preclude removal of the facilities • Continued periodic maintenance reviews for non-producing platforms and pipelines	Continue to implement the following established requirements across all assets: • Facility Integrity Management System • Well Operations Management Plan • Offshore asset Safety Cases Conduct platform maintenance review workshops throughout 2025

General Direction 817 Direction		Key work plan items	2024 progress	Look ahead next 12 months
4a cont.			Wellwork: • Completed plug and abandonment of all 27 wells at Flounder, 13 wells at West Kingfish, two wells at Dolphin, two wells at Perch and 18 wells at Bream A • Completed plug and abandonment two subsea exploration wells (Gudgeon-1 and Terakihi-1) Safety Cases: • *Skandi Darwin* Safety Case revisions accepted in March for work at Mackerel and submitted in November for work at Fortescue • West Kingfish Safety Case revision was submitted in April and received two Requests for Further Written Information and will be resubmitted to NOPSEMA shortly • Mackerel Safety Case revision was accepted in April • Perch and Dolphin Safety Case revision accepted in October • *Valaris 107* Safety Case revisions accepted in October for Dolphin/Perch works and November for Bream B activities • Whiting Safety Case revision was initially submitted to NOPSEMA in November; this revision will be worked further to incorporate NOPSEMA's feedback and plans are underway for resubmission.. • Fortescue Safety Case revision was initially submitted to NOPSEMA in November; this revision will be worked further to incorporate NOPSEMA's feedback and plans are underway for resubmission Platform maintenance: • Inspections completed on all non-producing facilities • No issues were identified that would preclude removal obligations under Section 572 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) • Ongoing maintenance conducted on all platforms in accordance with their planned maintenance campaigns	

General Direction 817 Direction		Key work plan items	2024 progress	Look ahead next 12 months
5a	Submit to NOPSEMA on an annual basis, a decommissioning progress report detailing progress with implementing the directions and associated decommissioning activities until all decommissioning works have been completed.	Annual Progress Report	*Bass Strait Operations Decommissioning Report 2021* submitted prior to 31 December 2021; *Bass Strait Operations Decommissioning Report 2022* submitted prior to 31 December 2022; and *Bass Strait Operations Decommissioning Report 2023* submitted prior to 31 December 2023: and *Bass Strait Operations Decommissioning Report 2024* submitted prior to 31 December 2024 All reports published on Esso's website within 14 days of obtaining NOPSEMA satisfaction	Prepare *Bass Strait Operations Decommissioning Report 2025*
5b	The report submitted under Direction 5(a) must be to the satisfaction of NOPSEMA and submitted to NOPSEMA no later than 31 December each year.			
5c	Publish the report on the registered holders' website within 14 days of obtaining NOPSEMA satisfaction under Direction 5(b).			

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