

Bass Strait Operations

Decommissioning Report 2023

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 MEPAU A 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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Executive Summary

"Ongoing engagement with Esso's community, government and non-government stakeholders is helping to progress a decommissioning program that aims to ensure the safety of our workers, the community and the environment into the future."



Senior Project Manager Australia Major Projects, Andy Hospodar

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After delivering energy for more than 50 years to Australia, some of the facilities, consisting of 10 platforms, four of the subsea facilities, 16 pipelines and approximately half of all wells, no longer produce oil and gas. An additional three platforms and five pipelines are anticipated to stop supporting oil and gas production by 2025. Esso is focused on safely shutting-down the nonproducing facilities in Bass Strait and ensuring they remain safe throughout the decommissioning process. At the same time, Esso continues safely operating the still producing offshore platforms and subsea facilities.

This Report has been developed in accordance with Esso's commitment to keep government, interested non-government organisations and other stakeholders informed of the progress of decommissioning activities.

In May, Esso established the Australia Major Projects organisation tasked with delivering both the Bass Strait Decommissioning Project and the South East Australia Carbon Capture and Storage Project. The Bass Strait Decommissioning Project has a fully-staffed, dedicated team consistent with the Project's progress. This increased resourcing leverages the team involved to-date as well as global and experienced hires, including experts across ExxonMobil construction, operations and decommissioning projects in Australia, the US, Canada, Africa, Asia and the Middle East.

Decommissioning planning

Planning for Campaign #1, the first of the decommissioning campaigns, progressed in 2023.

The Campaign #1 scope involves facilities that are either at or near the end of their production life. It includes removing topsides and achieving approved end states for up to 10 steel piled jacket platforms, the full removal of two monotowers, and removing topsides from the Bream B platform.

Campaign #1 Removal Activities require specialist equipment, including a Heavy Lift Vessel (HLV). After completing a technical tender in 2022 that produced plans for how contractors would conduct platform Removal Activities in Bass Strait, Esso began a commercial tender with experienced HLV contractors during 2023. The tender process progressed during the year, with the aim to award a contract by early 2024.

Esso continues to make the required regulatory submissions and revisions so that Campaign #1 Removal Activities can begin as soon as practicable, and no later than the 30th September 2027.

Esso submitted the Decommissioning End State Environment Plans Scoping Document – Pipelines and Umbilicals to NOPSEMA in May. The scoping document aims to seek early regulatory advice on proposed approach for the assessing decommissioning options for pipelines, umbilicals and associated subsea equipment. NOPSEMA provided high level strategic advice to Esso in late May and formal feedback in July. Esso considered the advice provided by NOPSEMA, updated the scoping document accordingly and provided the revision to NOPSEMA in October.

A structured decision making process is being used to identify and evaluate pipeline decommissioning options, with Stakeholder Forums held in 2023 to discuss how potential options may impact their functions, interests, and activities. Technical and environmental studies to assess the impacts, risks and benefits of potential options also continued.

Five-yearly Safety Case revisions were accepted by NOPSEMA in 2023 for non-producing platforms, including Bream A, Bream B, Dolphin, Kingfish A, Kingfish B, Perch, Fortescue, Flounder, Mackeral and Whiting facilities. Several revisions to the Safety Case for the Multi-Purpose Support Vessel (MPSV) *Skandi Darwin* were also required to incorporate Esso's work scopes. The most recent revision was accepted in October, and approved for work that is planned to commence in 2024.

Approval may be required under the *Environment Protection (Sea Dumping) Act 1981* for *in situ* decommissioning. Esso submitted a Sea Dumping Permit application to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in 2023 with regard to the proposed end states for Campaign #1 steel piled jackets. This application focused on structures above the seabed.

An inspection was undertaken by NOPSEMA in July to assess the planning and progress made to date to comply with General Direction 817 issued under Section 574 of the Offshore Petroleum and Greenhouse Gas Storage Act 2006 in May 2021. Esso will consider NOPSEMA's conclusions and the advice provided during this inspection, and implement any necessary actions.

Preparatory Decommissioning Activities

Work continues on Preparatory Decommissioning Activities that include: well plug and abandonment; inspection, maintenance and repair; care and preservation; and facility preparation at all nonproducing facilities to comply with the *Bass Strait Environment Plan*.

In February, Esso completed all well plug and abandonments for the Fortescue platform using the HWT600 hydraulic workover rig. Rig 47 then commenced the conductor removal program, which was completed in June. The removed conductors were transported to Esso's Barry Beach terminal for final disposal.

Through the combination of the MPSV and Esso's rigless wireline unit, the reservoirs were plugged and abandoned at Dolphin in March and Perch in April. Topsides facilities preparation was also completed for both platforms. Reservoir abandonment activities using Rig 22 continue on Flounder platform.

The Whiting 'make safe' campaign was also completed, so this platform is ready for final preparation activities planned in 2024.

In August, the Wells team achieved a significant milestone with completion of the 100th well plug and abandonment. This achievement also marks completion of one-third of the plug and abondenment scope for Esso's Bass Strait operations.

In September, flush and drain work was completed ahead of schedule on the production systems of the Kingfish B platform. Key learnings from this work were carried over to the Fortescue platform, where the team started work in October.

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Environmental studies

Analysis and interpretation of the data collected offshore during 2022 Environmental Survey 2 (Winter) was undertaken in 2023 and confirmed the presence of a markedly different marine ecosystem existing on the jacket structures and pipelines, as compared with the surrounding seafloor and a nearby natural reef. Over 60 species of fish were noted on and around the jackets and over 80 species of fish observed along the pipelines during the Winter survey, as well as Australian fur seals, crustaceans such as lobsters and crabs, sharks, sponges, and anemones.

A productivity study was undertaken in 2023 to assess the contribution of selected jackets, a nearby natural reef, and sandy seafloor locations to the production of fish in Bass Strait. The study indicated that for the three fish species studied, fish production on and around the jackets was high relative to the nearby natural reef and sandy seafloor surveyed. The study also concluded that the estimated fish biomass and production rates for the jackets were high relative to other artificial reefs and habitat studied around the world. A study was also conducted to assess the degree of ecological connectivity between Esso infrastructure and Bass Strait natural reef areas. The study found that natural reefs, rather than Esso infrastructure, were the main stepping-stones, local sources and destination habitats for all study species.

Esso continued to progress additional studies in 2023 to support future decommissioning planning including pipeline removal studies, naturally occurring radioactive material studies, mercury studies and material degradation studies (including steel and plastics).

Regulator engagement

Esso regularly engages with interested federal and state government agencies so they are informed about the progress of decommissioning activities in Bass Strait.

Progress updates were provided on General Direction 817 during quarterly engagements with NOPSEMA. Additional meetings were held to discuss progress with the preparation of environment plans and to obtain and/or respond to any feedback provided by the Regulator.

Esso conducted several engagements with DCCEEW regarding Sea Dumping Permit applications related to Campaign #1 steel piled

jackets, including the progress of applications for leaving sections of jackets *in situ* above and below the seabed. Esso also engaged with the National Offshore Petroleum Titles Administrator in October regarding variations required to licences during decommissioning and the process for surrender of titles post-decommissioning.

Stakeholder engagement

In accordance with Esso's stakeholder engagement framework, the company aims to keep stakeholders updated about the progress of decommissioning activities.

Over 1200 individual engagements were conducted with stakeholders during 2023. Of these, over 900 directly related to decommissioning activities. This compares to 1071 engagements conducted in 2022 due to increasing decommissioning planning activities and associated regulatory submissions.

To enhance engagement throughout the year, Esso introduced the 'Esso Consultation Hub' in July to help stakeholders find information on current Esso activities, the consultation process and upcoming meetings, forums and events. Other enhancements made throughout the year include: increased resources within the Consultation team, introduction of a QR code for ease of access to the Esso Consultation Hub; an electronic Esso Consultation Questionnaire; revisions to Esso's consultation methodology; and introduction of 'Stakeholder Forums' for pipeline network end state options consultations.

As indicated in this Executive Summary, and outlined in further detail in this Report, there are many important stakeholder relationships and multiple complexities involved in decommissioning offshore facilities. As operator of Australia's most mature oil and gas fields, Esso is working closely with key government, industry and community stakeholders so that the Bass Strait facilities are safely decommissioned in accordance with regulatory requirements to best address environmental, community and government needs.

May

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



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 2023.

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 MEPAU A 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.

Esso continues to explore opportunities for carbon capture and storage to reduce greenhouse gas emissions from Gippsland Basin industries. Carbon capture and storage involves capturing CO_2 emissions from industrial activity or power plants at the source and injecting it into deep underground geologic formations for safe, secure, and permanent storage. It is one of few proven technologies that reduces CO_2 emissions from high-emitting and hard-to-decarbonise sectors in heavy industries like manufacturing, refining and petrochemicals.

Esso is undertaking front-end engineering design (FEED) studies for the South East Australia Carbon Capture and Storage Project, which will initially take CO_2 from Longford Gas Plants to the Bream A platform, where it will be permanently injected into the Bream reservoir. This Project has the potential to capture up to two million metric tonnes of CO_2 – the equivalent of taking almost half a million cars off the road for every year of operation.

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 up to 500 workers who work and live 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, which is 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, 10 platforms, four subsea facilities, 16 pipelines and approximately half of all wells drilled, are no longer producing oil and gas. A further three platforms and five pipelines are expected to no longer support oil and gas production by 2025. Esso's decommissioning team is planning for the decommissioning of these nonproducing assets as well as the eventual decommissioning of all producing assets in Bass Strait.

lessons learned from Exxon Mobil Using 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, ExxonMobil government, and 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 Southwest 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 1-2 shows the location of the Bass Strait facilities.

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.



Figure 1-1: Typical steel piled jacket platform topsides



Figure 1-2: Location of facilities

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

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 concretebased 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
Кіррег	41	95	Ρ
Seahorse	21	42	NP
Tarwhine	21	42	NP
West Barracouta	22	46	Ρ
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. SPJ: Steel piled jacket

CGS: Concrete gravity structure

MT: Monotower

NP: Non-producing

P: Producing

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

Associated with the pipeline decommissioning work is 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
- concrete and grout mattresses and bags.

1.6 Stages of activity

Esso's Bass Strait facilities are operated in accordance with defined stages of petroleum activity:

- Production
- Cessation of Production
- Stasis Mode
- Removal Activities
- Surrender of Titles.

Figure 1-3 shows these stages of activity.

PRODUCTION

AND REPAR

PRODUCTION

Producing oil and gas from wells. Product distributed via pipelines.

DECOMMISSIONING

PREPARATORY DECOMMISSIONING ACTIVITIES

CESSATION OF PRODUCTION

Facility no longer producing. Some parts of the platform still in operation. May be connected to producing facilities. Wells will be plugged and abandoned.

STASIS MODE

Minimum facility visits, frequency based on risk. Facility is isolated from fuel gas and export pipeline connections.

REMOVAL ACTIVITIES

Execution of removal activities required to achieve agreed facility end state.

SURRENDER OF TITLES

Following post-removal monitoring as agreed, titleholders will apply to NOPTA to surrender relevant titles.

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

1.6.1 Preparatory Decommissioning Activities

In this Report, 'Preparatory Decommissioning Activities' are described as decommissioningrelated 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.

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 the flushing of pipelines or umbilicals and subsequent liquids disposal.

For these reasons, certain non-producing platforms may be maintained, wells brought temporarily online, and platform systems 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:

- <u>well plug and secure</u> 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
- <u>facility preparation activities</u> prepare topsides and jackets for lifting; the removal of hydrocarbons; cleaning import and export pipelines; and any other activities that are required to prepare the platform 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 (HLV) 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 platform or pipeline 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. 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
- maintain the platform to a level that does not preclude full removal as required under the Offshore Petroleum and Greenhouse Gas Storage Act 2006.

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 restaffing 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 nonproducing 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 stages of each of the non-producing platforms and subsea facilities (excluding pipelines), as well as decommissioning activities conducted in 2023 and proposed for the future. Please note this timeline is subject to change pending decommissioning requirements.

The status of all facilities and pipelines as at the end of 2023 is shown in Figure 1-5.

2023	2024	2025	2026	2027	
Whiting WTA					LEGEND
					CESSATION OF PRODUCTION
Mackerel MKA					Î
					Care and
Fortescue FTA					preservation
Bream A BMA				[<mark>2</mark> 7 WELLS]	Well plug and abandon,
					secure, conductor pull
Flounder FLA				[27 WE <mark>LLS]</mark>	
					Facility preparation
Kingfish A KFA				[21 WE <mark>LLS]</mark>	STASIS MODE
Kinafish B KEB					REMOVAL
					/ Chimes
Perch PCA				[2 WELLS]	OF TITLES
Dolphin DPA				[2 WELLS]	
				[17 WELLS]	
DIGUII D BMB	1999 (Marine 1997) 				
Blackback BKA					
Casharasa					
Seanorse SHA					
Tarwhine TWA				1	
Cobia 2 CBA <u>2</u>					

Figure 1-4: Estimated timing of activities for currently non-producing platforms and subsea facilities



Figure 1-5: Status of facilities and pipelines as at December 2023



2 Governance

At every stage of development, Esso considers the level of risk, works to reduce environmental impacts, and complies with all applicable laws and regulations. The company is guided by the high standards of ExxonMobil with regard to 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, 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 for activities in Commonwealth waters, and the Victorian Offshore Petroleum and Greenhouse Gas Storage Act 2010 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*, and includes the associated Oil Pollution Emergency Plan.

The Bass Strait Environment Plan has been developed to comply with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 and was assessed and accepted by NOPSEMA. This Plan is reviewed and updated every five years, with the current version publicly available at

info.nopsema.gov.au/environment_plans/470/sho w_public.

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

The Plan has been assessed and accepted by the 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. 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

Under Section 572 (3) of the Offshore Petroleum and Greenhouse Gas Storage Act 2006, Esso is required to remove all structures, equipment and other property that is neither used nor to be used, in connection with operations, from the petroleum title area. This is referred to as the 'base case' end state. However, Section 572 (7) of the Act, advises that the obligation to fully remove all property is subject to other provisions of the Act, regulations, directions and other applicable laws. Therefore, Esso may consider other end states that deviate from full removal if it can be demonstrated that:

- they would deliver equal or better environmental, safety and well integrity outcomes than full removal
- they meet the ALARP and acceptability environment plan acceptance criteria required by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulation 2009.

Esso can present this case to NOPSEMA for assessment in an environment plan. The environment plan can either:

- seek NOPSEMA acceptance of the end state only, with Removal Activities required to achieve the accepted end state submitted to NOPSEMA for assessment in a subsequent environment plan; or
- present to NOPSEMA a combined demonstration of proposed end state along with the Removal Activities required to execute this end state.

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 and its regulations.

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

SPOTLIGHT

New Bass Strait Senior Project Manager

With more than 25 years of engineering experience, ExxonMobil Senior Project Manager of Global Projects and Esso's new Senior Project Manager, Andy Hospodar, is bringing global best practice to the Project.

Andy has been based with Esso in Melbourne since May 2023 and is responsible for Bass Strait decommissioning planning, including cost and scheduling, managing regulatory programs, safety, and overseeing the decommissioning workforce.

Before joining Esso's Major Projects team, Andy was the Project Manager for the Angore Gathering System – part of the US\$19 billion Papua New Guinea Liquefied Natural Gas development. He also has experience as ExxonMobil's Global Projects Lead based in Houston, Texas. Prior to ExxonMobil, Andy was a United States Army Captain working as a supervising engineer for the Department of Public Works, Korea. Andy has an affinity with the Bass Strait Decommissioning Project because of his many years of relevant engineering experience and his personal interest in recreational fishing.

"While I have enjoyed every project I have worked on for ExxonMobil, I have a strong personal interest in driving a long-term successful outcome for the Bass Strait Decommissioning Project.

"With this Project, my aim is to achieve the best possible balance between the need to decommission nonproducing Esso assets with broader environmental and commercial fishing requirements.

"I am confident that the experienced team we have at Esso, together with government, commercial fisheries and community stakeholders, will achieve a sustainable solution that will benefit the Project and the broader Gippsland region." New Safety Cases will be developed for activities conducted by the Mobile Offshore Drilling Unit and Removal Activities required to achieve the accepted facility end state. Activities conducted by the Multi-Purpose Support Vessel (MPSV) will be included in an addendum to the vessel's Safety Case.

2.5 Well Operations Management Plan

Esso operates in accordance with its Well Operations Management Plan. 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
- reduce well integrity risks to ALARP
- define performance outcomes, performance standards, and measurement criteria.

The Well Operations Management Plan is reviewed at least every five years, with the next revision scheduled for 2027.



3 Decommissioning planning

Esso's decommissioning activities are planned so they are conducted safely and reduce environmental impact, while at the same time meeting regulator, stakeholder, and 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 (DCCEEW).

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.

STAGE 1

END OF FIELD LIFE

End of field life, strategy, cessation of production and external alignment

STAGE 2

SELECT

Concept definition, early execution and contracting plans, studies, stakeholder engagement and regulatory alignment and submissions (for decommissioning concepts)

STAGE 3

DEFINE

Contracting, removal methodology optimised, execution plans matured

STAGE 4

EXECUTE

Preparation of facilities for removal, regulatory submissions (for execution), establish disposal yard

> Facilities removal, transportation and disposal

STAGE 5

CLOSEOUT

Surrender of petroleum license/title

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 involve the use of drilling rigs that 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 full 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 an HLV.

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 2023, 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 execution of approved end states for up to 10 steel piled jacket platforms:
 - Halibut
 - Fortescue
 - Cobia
 - Mackerel

- Kingfish A
- Kingfish B
- West Kingfish
- Flounder
- Bream A
- Whiting
- removal of two monotowers:
 - Perch
 - Dolphin
- removal of topsides from Bream B platform.

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 MPSV and an HLV spread. Esso has entered a multi-year agreement with DOF Subsea Australia Pty Ltd (DOF) to charter the *Skandi Darwin* as the MPSV to support Campaign #1 decommissioning activities.



The MPSV Skandi Darwin alongside the Whiting platform

After completing a technical tender in 2022 that produced plans for how contractors would conduct platform Removal Activities in Bass Strait, Esso began a commercial tender with experienced HLV contractors during 2023. The tender process progressed throughout 2023, with the aim to award contracts by early 2024.

While this tender process is focused on Campaign #1, key learnings will be carried through to future decommissioning campaigns for the remaining producing facilities.

Two Mobile Offshore Drilling Units will be 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).

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.

Topsides

Following removal, facility topsides will be transported to an onshore facility for dismantling and recycling/disposal.

Removed sections of steel piled jackets

Esso continues to evaluate the most appropriate recycling and disposal options for the removed sections of steel piled jackets to best meet environmental and stakeholder needs.

As discussed in Section 3.5.2, all removed steel piled jacket sections will be transported onshore, along with the topsides, for recycling.

3.3.5 Waste management planning

Esso and a specialist independent marine industry advisor have developed Waste Inventory Mapping to determine the type of waste to be expected from decommissioning of the Bass Strait facilities.

In 2023, Esso commenced intrusive sampling on some platforms to update Waste Inventory Mapping data. This will enable appropriate planning for the handling of waste once the topsides are transported onshore.

The sampling will continue in 2024.

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 2023, the Decommissioning Planning team conducted several technical studies to inform decommissioning planning.

These included:

- environmental impact and cost efficiency assessments of the methodologies for removal of all pipelines and umbilicals in Bass Strait
- feasibility assessments of methodologies for partial and/or full removal of the two Concrete Gravity Structures (Bream B and West Tuna)
- early preparation for Campaign #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 full removal of the facilities.

During 2023, platform above water inspections were conducted on Fortescue and Kingfish A.

Platform above water inspections were also completed for Bream A, including the flareboom and radio tower.



Bream A platform showing the flareboom and radio tower

The periodic inspection for the Flounder platform is scheduled to commence by years end, and will continue into 2024.

To-date, nothing identified by the inspectors would preclude full removal of the facilities and can be actioned through the regular maintenance program.

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.

During 2023, Esso worked with regulators to develop the necessary approvals to ensure Campaign #1 could commence as soon as practicable and prior to 30th September 2027.

3.5.1 Environment plans

The end state environment plan for Campaign #1 steel piled jackets was submitted to NOPSEMA in December 2022, following a 30-day voluntary public consultation period undertaken in August 2022.

The Gippsland Basin Decommissioning Campaign #1 Steel Piled Jackets End State Environment Plan aims to gain acceptance for the proposed end states (where these are not full removal) for the Campaign #1 steel piled jackets.

The two monotowers (Perch and Dolphin) are not part of the environment plan's scope as these facilities will be fully removed.

For further information on the end state options presented in the *Gippsland Basin Decommissioning Campaign #1 Steel Piled Jackets End State Environment Plan,* refer to:

https://www.exxonmobil.com.au/-/media/australia/files/energy-andenvironment/upstream-operations/steel-piledjackets-end-state---environment-plansummary.pdf.

NOPSEMA provided feedback on this environment plan in June 2023.

Esso is currently addressing this feedback and revising the environment plan for resubmission in the first quarter of 2024.

The Gudgeon-1 and Terakihi-1 Plug and Abandonment Environment Plan was also submitted to NOPSEMA in December 2022 for the plug and abandonment of two non-producing subsea exploration wells (Gudgeon-1 and Terakihi-1). This environment plan remains under assessment. Planning for and preparation of further environment plans to support decommissioning activities continued in 2023 and included:

- removal activities required to achieve the Campaign #1 steel piled jacket end states
- well plug and abandonment campaigns utilising a jack-up rig
- end states for pipelines, umbilicals and subsea equipment
- end states for concrete gravity structures.

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 full removal, the process is also used to determine if the proposed end states provide an equal or better environmental outcome compared to full removal and if associated environmental risks and impacts are assessed to be ALARP and acceptable.

Steel Piled Jackets

In response to NOPSEMA feedback on the *Gippsland Basin Decommissioning Campaign #1 Steel Piled Jackets End State Environment Plan* and discussions with potential decommissioning contractors, Esso re-evaluated the option of placement of some upper sections of deeper water steel piled jacket onto the seabed adjacent to the lower section of the jacket remaining in place.

It was concluded there was an inadequate definition of this option to allow for a detailed assessment of environmental impacts and risks to meet the requirements of regulatory authorities.



Jacket structure of Cobia platform

As such, this option is no longer being considered for Campaign #1, so all removed steel piled jacket sections will be transported onshore, along with the topsides, for recycling.

Pipelines

A decommissioning options assessment for decommissioning the Bass Strait pipeline network continued throughout 2023.



Wobbegong shark (Orectolobus spp.) recorded along KFB500-HLA pipeline

At the start of May, Esso prepared and submitted to NOPSEMA the Decommissioning End State Environment Plans Scoping Document – Pipelines and Umbilicals.

The scoping document aims to seek early regulatory advice on the proposed approach for assessing decommissioning options for pipelines, umbilicals and associated subsea equipment. In response to the scoping document, NOPSEMA provided high level strategic advice to Esso in late May and formal feedback in July.

Esso considered the advice provided by NOPSEMA, updated the scoping document accordingly and provided the revision to NOPSEMA in October.

Technical and environmental studies to assess the impacts, risks and benefits of potential options also continued.

A structured decision making process is being used to identify and evaluate decommissioning options, with Stakeholder Forums held in 2023 to discuss how potential options may impact their functions, interests, and activities.

Feedback from these Forums was incorporated into workshops held in 2023, along with input from scientists, academics, and technical and environmental studies. This process will continue in 2024 to help identify the best option for decommissioning the pipeline network.

The agreed option will be presented in an environment plan that will be submitted to NOPSEMA for acceptance.

3.5.3 Safety Cases

Five-yearly Safety Case reviews were completed in 2022 for Barracouta, Bream A, Bream B, Cobia, Dolphin, Halibut, Kingfish A, Kingfish B, Marlin Complex (Marlin A and B), Perch, Snapper, Tuna, West Kingfish, West Tuna and Whiting facilities. These Safety Cases were accepted by NOPSEMA in 2023, with the exception of West Tuna, for which a Request for Further Written Information was received in relation to the Kipper Compression Project. The West Tuna Safety Case review was resubmitted to NOPSEMA at the end of 2023.

These revisions are consistent with NOPSEMA's Safety Case content and level of detail 2020 guidance note.

Five-yearly Safety Case revisions for the Fortescue, Flounder and Mackerel facilities were also submitted and accepted by NOPSEMA in 2023.

As well as scheduled revisions, a Safety Case revision must be submitted if the required Removal Activities are not addressed by an existing Safety Case. In accordance with the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009, a validation of the revision is required before a revision can be submitted.

Several revisions to the Safety Case for the MPSV *Skandi Darwin* were required to incorporate Esso's work scopes. DOF, as owner of the vessel, prepared the revisions and worked closely with Esso throughout this process.

The most recent revision was accepted in October 2023, and approved for work that is planned to commence in 2024. Future Esso work scopes may require a further MPSV Safety Case revision.

3.5.4 Well Operations Management Plan

A revision of the *Gippsland Basin Wells Operations Management Plan* was originally submitted to NOPSEMA for review on 30 November 2021. Since then, Esso has provided subsequent revisions to NOPSEMA in response to feedback. The most recent version was accepted in December 2022.

3.5.5 Other key regulatory approvals

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

Esso submitted a Sea Dumping Permit application to the DCCEEW in 2023 with regard to the proposed end states for Campaign #1 steel piled jackets. This application focused on structures above the seabed.

A second application, focusing on below seabed structures, will be submitted early in 2024.

SPOTLIGHT

Victoria leads environment and regulatory team

Victoria Browne, joined the Esso Bass Strait Decommissioning Project in August to lead the Campaign #1 Environment and Regulatory team.

With more than a decade of experience, Victoria brings a wealth of industry knowledge across gas and power marketing analysis, supply planning, and engineering. Most recently, she worked as a gas coordinator and reliability engineer with ExxonMobil's global operations.

Since joining the Project, Victoria has been part of the team that prepared Esso's Sea Dumping Permit submission to the Department of Climate Change, Energy, the Environment and Water. She has also been working with the Esso Environment and Regulatory team on a revision of the *Gippsland Basin* Decommissioning Campaign #1 Steel Piled Jackets End State Environment Plan, which will be submitted to NOPSEMA in early 2024.

Victoria says the most enjoyable aspect of her current role is working with an excellent team of people.

"Our team has a broad range of experience that ensures Esso brings the best possible knowledge and expertise to the regulatory process.

"For me, this role provides an opportunity for continuous learning and refinement of my knowledge and skills. You can bring your own expertise to the table but there is still always a lot to learn on a daily basis. The complimentary skills of our team means that we continue to support and learn from each other.



Campaign #1 Environment and Regulatory Team Lead, Victoria Browne

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 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 in May 2021.

During 2023, 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.

An inspection was undertaken by NOPSEMA in July 2023 to assess the planning and progress made to date to comply with General Direction 817.

Esso will consider NOPSEMA's conclusions and the advice provided during this inspection, and implement any actions that may be necessary.

In accordance with Direction 5 of General Direction 817, the progress of activities relevant to each of the Directions can be found in the annual Bass Strait Operations Decommissioning Reports.

The Bass Strait Operations Decommissioning Report 2022, which was issued to NOPSEMA in December 2022, was finalised to NOPSEMA's satisfaction and published on the Esso website (exxonmobil.com.au) in the first quarter of 2023.

This Bass Strait Operations Decommissioning Report 2023 was issued to NOPSEMA in December and will be published in early 2024. Table 3-1: Progress update cross-reference for allDirection of General Direction 817

Direction	Section reference	Status
1 a	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)
Зc	N/A	Closed (2022)
3d	N/A	Closed (2022)
4 a	Section 0	Ongoing
5a	Section 3.5.6	Ongoing
5b	Section 3.5.6	Ongoing
5c	Section 3.5.6	Ongoing



4 Preparatory Decommissioning Activities

Esso is maintaining non-producing facilities and surrounding environments in a safe state until their eventual decommissioning.

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 2023, Esso completed almost \$340 million of Preparatory Decommissioning Activities, including completion of Fortescue plug and abandonment and commencement of wells preparation activities on Flounder and Bream A. Another \$210 million has been committed for Preparatory Decommissioning Activities 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 full removal as required under Section 572 of the Offshore Petroleum and Greenhouse Gas Storage Act 2006.

4.1.2 Wellwork

In February, Esso completed all well plug and abandonments for the Fortescue platform using the HWT600 hydraulic workover rig. Rig 47 then commenced the conductor removal program, which was completed in June. The conductor is the first component installed in the well construction process, providing the structural support for activities that follow. As a result, it's the last piece to be removed. The removed conductors were transported to Esso's Barry Beach terminal for final disposal.



The empty sea deck on the Fortescue platform following completion of conductor removal activities

Through the combination of the MPSV and Esso's rigless wireline unit, the reservoirs were plugged and abandoned at Dolphin in March and Perch in April. The completion of these activities demonstrated an innovative engineering approach to completing abandonments and represented a significant reduction in decommissioning risk.

Reservoir abandonment activities using Rig 22 continue on Flounder platform.



Rig 22

At Kingfish A, the rigless wireline unit commenced plug and abandonment in August and will continue into 2024.

A total of 11 reservoir plug and abandonments were completed at Bream A using the rigless method.

The HWT600 hydraulic workover rig was mobilised to Bream A in August to complete the plug and abandonment of the remaining wells that will not impact future potential carbon capture and storage.

In July, Esso contracted the *Valaris 107* jack-up rig to complete plug and abandonment at Bream B of the suspended exploration wells, and the remaining scopes of Perch and Dolphin.

In August, the Wells team achieved a significant milestone with completion of the 100th well plug and abandonment. This achievement also marks completion of one-third of the plug and abondenment scope for Esso's Bass Strait operations.

4.1.3 Facilities preparation

During 2023, Esso completed topsides facilities preparation for the Perch and Dolphin platforms. The Whiting platform 'make safe' campaign was also completed, so it is ready for final preparation activities planned in 2024.

Detailed engineering and execution planning for the Blackback subsea pipeline flushing was completed during the year with the activities scheduled for 2024.



Workers boarding a helicopter on Bream A platform

In September, flush and drain work on the production systems of Kingfish B platform was completed ahead of schedule.

Key learnings from this work were carried over to the second platform in the schedule, Fortescue, where the team started work in October.

The HLV contractor technical tender development phase, as outlined in Section 3.3.3, has provided valuable insight into the range of facility preparation works that may be required on larger platform topsides, depending on the contractor that will be selected for the removal works and their specific removal methodology.

4.2 Stasis Mode

During 2023, no additional facilities entered into Stasis Mode. The first platform to enter Stasis Mode will be Whiting, which is expected in 2024. Blackback, Seahorse and Tarwhine, Cobia 2 subsea facilities remain in Stasis Mode.

4.3 Inspection, maintenance and repair

Esso inspects platforms periodically and conducts planned campaigns for identified maintenance and repair activities.

During 2023, inspections were completed on all non-producing facilities. No issues were identified that would preclude full removal obligations under Section 572 (2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

Ongoing maintenance was also conducted on all platforms in accordance with their planned maintenance campaigns.

4.4 Support activities

The MPSV *Skandi Darwin* has been integral to decommissioning activities, and the walk-to-walk concept has proved to be a reliable and viable alternative to a jack-up rig campaign.

The MPSV's walk-to-work gangway landed on the Dolphin platform

Using its remotely operated vehicle (ROV), the MPSV *Skandi Darwin* has completed a series of survey work, including a number of break-in scopes, that provided critical information for the decommissioning strategy.

5 Environment

Continuous improvement in environmental management enables Esso to reduce the environmental impact of decommissioning activities.

Table 5-1 provides a summary of the currentphysical,biologicalandsocioeconomicenvironments in the Bass Strait OA.

Table 5-1: Operational Area (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 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), 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 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

Analysis and interpretation of the data collected during 2022 Environmental Survey 2 (Winter) was undertaken in 2023. The scope of this survey mirrored Environment Survey 1 (Summer) in order to investigate any seasonal and temporal variation in species abundance and richness.

The results of Environmental Survey 2 (Winter) confirmed the presence of a markedly different marine ecosystem existing on the jacket structures and pipelines, as compared with the surrounding seafloor and a nearby natural reef. Over 60 species of fish were noted on and around the jackets and over 80 species of fish observed along the pipelines during the Winter survey, as well as Australian fur seals, crustaceans such as lobsters and crabs, sharks, sponges, and anemones. Little seasonal variation was seen in species richness associated with the jackets, while a higher diversity of fish fauna was observed along pipelines during the Winter survey. The abundance of fish was observed to vary across the two seasons at both platforms and pipelines, which may be due to seasonal changes in species or their prey, variability in the use of the structures by fish in the region and/or the dynamic nature of the Bass Strait environment.

Further visual data is proposed to be collected in an offshore environmental survey due to commence in late 2023, using camera systems that are baited to attract fish into their field of view. These techniques can survey a higher number of more mobile (pelagic) predatory species, such as those targeted by fisheries, than the observational techniques used in previous ROV surveys.

From data collected as part of the environmental surveys, a productivity study was undertaken in 2023 to assess the contribution of selected jackets, a nearby natural reef, and sandy seafloor locations to the production of fish in Bass Strait. Three of the more abundant fish species that had been observed around the jackets were studied. They consisted of two fishery targeted species (reef ocean perch and jackass morwong) and one common reef species (butterfly perch). Overall, the study indicated that for the three fish species studied, fish production on and around the jackets was high relative to the nearby natural reef and sandy seafloor surveyed. The study also concluded that the estimated fish biomass and production rates for the jackets were high relative to other artificial reefs and habitat studied around the world.

A connectivity study was also undertaken to assess the degree of ecological connectivity between Esso infrastructure and natural reef areas in the Bass Strait. Connectivity is the movement of organisms and genes between areas and is a key process for sustaining and replenishing marine populations and communities across an area. The connectivity study considered if the infrastructure was likely to be acting as sources, destinations or 'stepping-stones' linking populations of marine biota across the area via dispersal of larvae.

Three species of fish and two benthic invertebrate species were considered in the study, which used a model of waves, tides and currents in the area along with key reproductive characteristics of the species to simulate the dispersal of larvae across the Bass Strait area. The study found that natural reefs, rather than Esso infrastructure, were the main steppingstones, local sources, and destination habitats for all study species.

Esso continued to progress additional studies in 2023 to support future decommissioning planning including pipeline removal studies, naturally occurring radioactive material studies, mercury studies and material degradation studies (including steel and plastics).

6 People

Decommissioning activities are conducted by a highly experienced team that complies with Esso's industry leading plans and procedures to protect the health and safety of workers.

6.1 Workforce

Esso has engaged a skilled workforce to undertake the extensive, challenging work that is involved in decommissioning non-producing offshore facilities.

Workers on the Perch platform

The team of professionals leading decommissioning activities has collectively more than 375 years of experience in large-scale oil and gas industry projects.

In May, Esso established the Australia Major Projects organisation tasked with delivering both the Bass Strait Decommissioning Project and the South East Australia Carbon Capture and Storage (SEA CCS) Project, as shown in Figure 6-1.

The Bass Strait Decommissioning Project has a fullystaffed, dedicated team consistent with the Project's progress. This increased resourcing leverages the team involved to-date as well as global and experienced hires, including experts across ExxonMobil construction, operations and decommissioning projects in Australia, the US, Canada, Africa, Asia and the Middle East.

Figure 6-1: Bass Strait Decommissioning Project organisational chart

SPOTLIGHT

Global chief scientist aims to achieve positive environmental outcomes for Bass Strait

Following a long and successful international career that has focused on environmental and social risk assessment, management, and impact assessment in the energy and natural resources sectors, Russell Tait had returned to Australia to retire. Most recently though he has returned to working on Bass Strait, advising on decommissioning activities for the Bass Strait oil and gas fields.

Russell brings more than 40 years of experience as an environmental scientist and continues to work closely with the Australian and international scientific communities to contribute to international best practice.

As ExxonMobil's former Chief Environmental Scientist, Russell identified and advanced environmental issues and initiatives for the company's operations worldwide. In that role he identified, scoped, and directed cetacean research with industry partners, initiated research projects with academic and research organisations globally, and led assessments and studies of oil and gas facilities with Governments, regulators, partner companies and communities worldwide.

Among his many credentials, Russell has published more than 40 peer-reviewed research papers on various aspects of environmental impact assessment and monitoring and maintains his Certified Environmental Professional (Impact Assessment) qualification.

He has been involved in a broad range of oil and gas facilities operation and decommissioning activities that includes, offshore oil and gas facilities in Bass Strait, global environmental permitting and consultation, United States offshore structures pre-decomissioning and United Kingdom North Sea structures and pipelines environmental and socio economic assessments.

Esso has an Inclusion and Diversity Strategy that is governed by the Inclusion and Diversity Council to help foster an inclusive and diverse workplace.

Numerous Employee Resource Groups support the Strategy and include the:

- Women in Energy Network that supports the professional and personal growth of female Esso employees
- PRIDE Australia Chapter, which stands for People for Respect, Inclusion and Diversity of Employees

In addition to his current work with the Bass Strait decommissioning activities, Russell continues to provide environmental expertise to a range of stakeholders in Australia and globally, and mentors early career environmental scientists and engineers and post graduate researchers.

"I especially enjoy working on projects where I can contribute to advancing environmental and social impact assessment and management.

"As well as helping to achieve positive environmental outcomes for the Bass Strait project, I aim to continue contributing to environmental assessments and impact mitigation development globally, through professional society participation, global research, environmental performance improvement, and education."

Environmental Scientist, Russell Tait in Chad/Cameroon during environmental assessments of onshore production operations

 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. For example, in 2023 the Wells team participated in naturally occurring radioactive material training in the Sale office.

The Wells team participating in naturally occurring radioactive material training

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. In September, more than 65 people participated in a two-day oil spill response scenario run by the ExxonMobil Regional Response team. The scenario involved collaboration with industry operators and regulators including the Australian Marine Oil Spill Centre, Oil Spill Response Limited, The Response Group, the Victorian Department of Transport and Planning, and the Victorian Environment Protection Authority. The scenario was based on a loss of well control resulting in an oil spill that had the potential to impact the East Gippsland coastline near Marlo.

From this scenario, an Incident Action Plan was developed, including detailed plans for dispersant application to minimise the risk of oil reaching the shoreline and to protect the Snowy River estuary.

Prior to the emergency scenario training, members of Esso's Wells team and the Regional Response team completed a three-day spill management training course to increase their knowledge of well source control.

The Wells team formed a Source Control Branch to develop plans to mitigate impacts of an oil spill release, as well as plans to drill a relief well to contain potential spills.

Oil spill response scenario participants at the Esso office in Docklands, Melbourne

7 Stakeholder engagement

Through informative, inclusive, and timely engagement, Esso aims to maintain stakeholder confidence and trust in the company and its 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, nongovernment 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 the representation of views, particularly for minority and special interest groups
- ensuring feedback is incorporated into decommissioning program design.

Esso maintains ongoing consultation throughout the Bass Strait Decommissioning Project 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 11A (1) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009. General engagements are also undertaken with other stakeholders.

In January, Esso revised its consultation methodology in response to the instructive reasons given by the Full Federal Court of Australia in the Decision (Tipakalippa v National Offshore Petroleum Safety and Environmental Management Authority (No 2), 2022) and Appeal (Santos NA Barossa Pty Ltd v Tipakalippa, 2022). Following feedback from NOPSEMA on the revised methodology, Esso made further adjustments to the methodology in September.

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 (CODA) through both the Operator Priority Committee as well as the Industry Advisory Committee. Esso is a contributing member of CODA, which was established in March 2021 by National Energy Resources Australia.

In June, Esso representatives attended the NOPSEMA-facilitated National Summit on Consultation on Offshore Petroleum Activities with First Nations Peoples in Perth.

Esso representatives also attended the Australian Energy Producers facilitated National Sea Country Alliance Summit in Perth in November. The Summit was also attended by representatives from the Gunaikurnai Land and Waters Aboriginal Corporation . The intention of the Summit was to bring Indigenous representatives together to progress discussions relating to industry consultation with Sea Country people and groups.

Esso attended the annual APPEA Conference and Exhibition held in May by Australian Energy Producers. Esso's parent company, ExxonMobil, along with Woodside Energy were the principal partners for the event.

Esso participated in the Visual Presentation series with a presentation titled 'Environmental benefits of leaving steel piled jacket platforms in place'. The presentation included images taken during ROV surveys of the steel piled jackets.

7.3 Government engagement

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

In 2023, Esso continued to conduct quarterly engagements with NOPSEMA to provide progress updates for each of General Direction 817 Directions.

Additional meetings were also held to discuss progress with the preparation of environment plans and to obtain and/or respond to any feedback provided by the Regulator.

As discussed in Section 3.5.5, Esso conducted several engagements with DCCEEW regarding Sea Dumping Permit applications related to Campaign #1 steel piled jackets, including the progress of applications for leaving sections of jackets *in situ* above and below the seabed.

Esso also engaged with the National Offshore Petroleum Titles Administrator in October regarding variations required to licences during decommissioning and the process for surrender of titles post-decommissioning.

7.4 Community engagement

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

During 2023, Esso conducted over 1200 individual engagements with stakeholders. Of these engagements, over 900 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)
- well plug and abandonment campaign using a jack-up rig
- revision of the Bass Strait State Waters Environment Plan.

Esso also consulted with stakeholders on other activities such as the SEA CCS Project, Turrum Phase 3 drilling, and Kipper subsea drilling.

The number of engagements conducted in 2023 was higher compared to 2022, which reflects the increase in decommissioning planning activities, increased resources in the Consultation Team and associated regulatory submissions.

7.4.1 Activity-specific consultation

Supporting the increase in activity throughout the year, Esso launched the Esso Consultation Hub in July. The Hub is a webpage designed to help stakeholders find information on current Esso activities, the consultation process and upcoming meetings, forums and events. It also provides access to the Esso Consultation Questionnaire, which allows participants to register for consultations and helps Esso better understand the functions, interests and activities of stakeholders.

An Esso QR code provides an easy way for stakeholders to access the Esso Consultation Hub. The QR code is provided in all advertisements, information bulletins and other engagement materials.

During 2023, Esso redesigned its planned consultation activities for pipeline network end state options to incorporate lessons learned from the steel piled jacket end state options consultations. One such change was to incorporate 'Stakeholder Forums' into planned consultations. The Forums enabled stakeholders to hear about the decommissioning options being considered and to share their views about how these options may impact their functions, interests and activities.

Three Stakeholder Forums were held during the year as part of pipeline network end state consultations. These Forums took place in Sale on 26 September; Melbourne on 3 October; and online on 4 October. Each Forum consisted of three key components:

- Information: Brief overview of the decommissioning activities in Bass Strait; regulatory requirements for oil decommissioning and gas infrastructure; a summary of infrastructure associated with the decommissioning activity; overview of the environment on and around the infrastructure; options being considered for decommissioning proposals to the regulator; what will be removed and what options are being considered for other infrastructure; and risks and impacts to the environment and stakeholder functions, interests and activities associated with decommissioning activities and options. Participants can ask questions of Esso representatives and subject matter experts during these Forums.
- Risks and impacts: A discussion of participants' views about the potential risks and impacts of the decommissioning options to them.
- End state options: A discussion on preferred end state option(s) and any additional issues.

Following the Forums, participants are provided with a summary of themes raised, and can provide further feedback to Esso if they desire. Output from the Stakeholder Forums is presented during decision-making workshop(s) so that Esso can make informed decisions on end-state option(s) to pursue and ultimately present to the regulator, NOPSEMA, for consideration and approval, as part of the Environmental Planning process.

Stakeholder Forums were advertised in eight local, state and national newspapers in mid-August, and

in the September edition of Esso's Connection magazine. Persons listed on Esso's database of stakeholders and relevant persons were directly advised of the forums through email and/or phone calls.

Preparing for the September Stakeholder Forum at Sale

A cross section of people attended from across government agencies, unions, local government, fishing industry/associations, environmental NGOs, First Nations, energy sector, individual community members, and community groups. Participants appreciated the opportunity to raise their concerns, ask questions, and hear more about what was being considered. They particularly appreciated being able to discuss their views with others and to hear what they had to say. Participants were open to understanding more about the decommissioning options.

An initial Esso screening workshop was held in Melbourne on 8-10 November to review and refine end state options based on outputs from the three Stakeholder Forums. Consultation is ongoing with plans for a further Stakeholder Forum and final decision-making workshop to occur in 2024.

7.4.2 General engagement

Esso's decommissioning-related general engagement highlights for 2023 includes:

- meeting with commercial fishing groups on a quarterly basis
- providing updates on Esso activities to worker unions
- conducting follow-up engagements with commercial and recreational fishing groups
- hosting the Longford and Offshore Annual Community Dinner in May in Sale.

Esso representatives join community members at the Longford and Offshore Annual Community Dinner held in May in Sale

Throughout 2023, Esso published multiple information bulletins its activities, including:

- Decommissioning in the Bass Strait Pipelines
- Decommissioning in the Bass Strait Steel Piled Jackets
- Bass Strait State Waters Environment Plan
- Kipper subsea drilling
- Turrum Phase 3 drilling
- Gudgeon-1 and Terakihi-1 exploration well plug and abandonment
- Jack-up rig well plug and abandonment
- South East Australia Carbon Capture and Storage Project.

All information bulletins are available on the Esso Consultation Hub.

In May, Esso provided updates after completing a technical tender in 2022. In July, Esso announced they have contracted the *Valaris* 107 for decommissioning activities.

The August issue of *Connection*, Esso's monthly digital newsletter, focused on achieving an important milestone in decommissioning activities with the last conductor pulled from the Fortescue platform. Esso has now completed almost \$1 billion of early decommissioning works with Fortescue becoming the ninth facility to have reservoir abandonment work completed.

The October issue of *Connection*, highlighted a significant milestone for the Wells team, who completed plug and abandonment of the 100th well in Esso's Bass Strait operations.

General community sessions to share information on all of Esso's decommissioning activities occurred in February, April, August and December across Lakes Entrance, and Sale. Esso also hosted a consultation booth at the Sale Community Festival on 9 December. Session details were advertised in various media outlets around Australia.

Further information

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

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Alternatively, our Head Office for the ExxonMobil companies in Australia can be contacted by calling:

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Acronyms

Acronym	Definition
ALARP	As Low As Reasonably Practicable
CODA	Centre of Decommissioning Australia
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DOF	DOF Subsea Australia Pty Ltd
DPMS	Decommissioning Project Management System
EMCAPS	ExxonMobil Capital Project Management System
Esso	Esso Australia Resources Pty Ltd
HLV	Heavy Lift Vessel
km	kilometre
m	metre
MPSV	Multi-Purpose Support Vessel
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
OA	Operational Area
OIMS	ExxonMobil Operations Integrity Management System
ROV	Underwater remotely operated vehicle
Woodside Energy	Woodside Energy (Bass Strait) Pty Ltd

Appendix A Indicative timeline: Decommissioning milestones and direction

Y Permissioning document submission

Note 1: The scope of the Removals Execution EP/s may be partial or full removal - depending on the outcome of the End State EP and Sea Dumping Permit applications. The submission/assessment timing for the Removals Execution EP/s will be reviewed and updated following contract award for Removals Contract.

Note 2: Removals start date provided is the latest commencement date, actual date may be earlier and will be confirmed through the Removals Contracting process.

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

Genera	I Direction 817 Direction	Key Work Plan Items	Progress to date	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
1Ь	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 Contract specialist removals contractor to complete removal and disposal of offshore assets	Completed regulatory compliance submissions Ongoing planning and preparation for removal phase	Continue to complete regulatory compliance submissions Issue contract award for removals contract. Issue contract award for facility preparation
26	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 Campaign #1 assets	Mackerel, Kingfish B and Fortescue plug and abandon campaigns completed	Complete plug and abandonment for Flounder and Bream A (excluding wells required for SEA CCS). Commence Bream B, Kingfish A and West Kingfish plug and abandonment campaigns
		Well Operations Management Plan for Well Abandonment	Revision finalised in December 2022	Next revision due December 2027

Genera	I Direction 817 Direction	Key work plan items	Progress to date	Look ahead next 12 months
За	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
ЗЬ	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: 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; approved decommissioning end states are not precluded; and occupational health and safety, structural integrity, well integrity and environmental risks continue to be reduced to ALARP. 	Continue to implement the following established systems 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 Platform above water inspections were conducted on Fortescue and Kingfish A Periodic inspection for Flounder scheduled to commence by years end and will continue into 2024 Inspections did not identify any issues that would preclude full removal of the facilities Continued periodic maintenance reviews for non-producing platforms and pipelines Well work: Completed all well plug and abandonments for Fortescue, Dolphin and Perch 	 Continue to implement the following established systems across all assets: Facility Integrity Management System Well Operations Management Plan Offshore asset Safety Cases Conduct platform maintenance review workshops throughout 2024

Genera	l Direction 817 Direction	Key Work Plan Items	Progress to date	Look ahead next 12 months
4a cont.			 Transported removed conductors to Esso's Barry Beach terminal for storage until final disposal 	
			Well Operations Management Plans:	
			Gippsland Basin Wells Operations Management Plan revision approved for issue in December 2022	
			Safety Cases:	
			 Five-yearly Safety Case revisions were accepted by NOPSEMA in 2023 for Barracouta, Bream A, Bream B, Cobia, Dolphin, Halibut, Kingfish A, Kingfish B, Marlin Complex (Marlin A and B), Perch, Snapper, Tuna, West Kingfish, Fortescue, Flounder, Mackerel and Whiting facilities 	
			The West Tuna Safety Case revision was re-submitted to NOPSEMA at the end of 2023	
			Platform maintenance:.	
			Inspections completed on all non-producing facilities	
			• No issues were identified that would preclude full removal obligations under Section 572 (2) of the Offshore Petroleum and Greenhouse Gas Storage Act 2006	
			 Ongoing maintenance conducted on all platforms in accordance with their planned maintenance campaigns 	
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	Prepare Bass Strait Operations Decommissioning Report 2024
5Ь	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.		submitted prior to 31 December 2023	
5c	Publish the report on the registered holders' website within 14 days of obtaining NOPSEMA satisfaction under Direction 5(b).			

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