

ExxonMobil

Decommissioning
options for
Bass Strait

Steel pile jacket and
monotower platforms





OUR COMMITMENT

As the operator of some of Australia's most mature oil and gas fields, Esso is committed to decommissioning our Bass Strait offshore facilities safely and effectively.

While we plan for decommissioning, we continue to focus on safely shutting-down facilities as they reach the end of their productive life, and ensuring they stay safe throughout the entire decommissioning process.

Bass Strait Operations Overview

Esso Australia Resources Pty Ltd (Esso) is a wholly owned subsidiary of ExxonMobil Australia Pty Ltd. Esso operates assets in Bass Strait, off Victoria's Gippsland coast, in partnership with the Gippsland Basin Joint Venture (Esso and BHP Petroleum (Bass Strait) Pty Ltd (BHP)) and the Kipper Unit Joint Venture (Esso, BHP, and MEPAU A Pty Ltd). Esso receives services, including personnel, from Esso Australia Pty Ltd, which is also a wholly owned subsidiary of ExxonMobil Australia Pty Ltd.

The offshore facilities extract, process and store oil and gas, which is transported onshore for further processing and distribution to customers. A variety of products are produced from operations in Bass Strait, ranging from gas and condensate to oil. Different reservoirs produce hydrocarbon products with different properties. Pipelines contain a combination of reservoir fluids.

Operations history

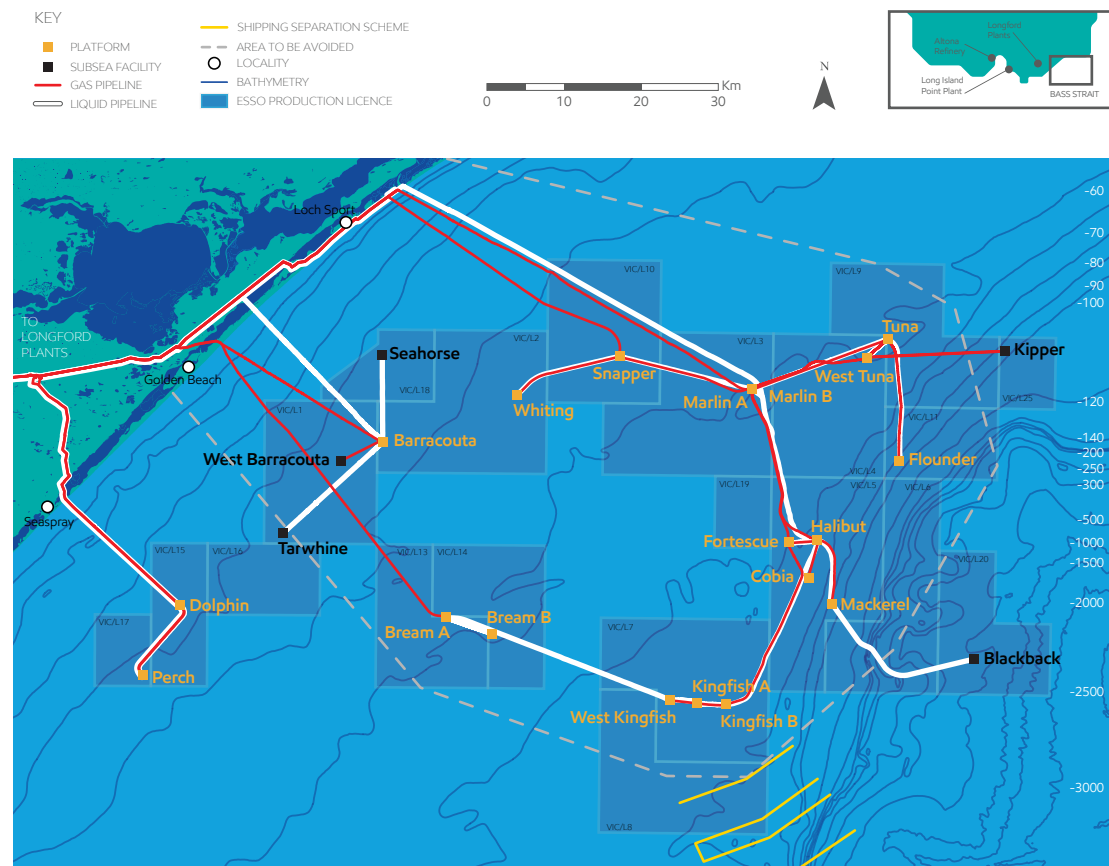
In 1965, the Gippsland Basin Joint Venture drilled Australia's first offshore well in Bass Strait, resulting in the discovery of the Barracouta gas field. Two years later, the first offshore oil field, Kingfish, was discovered. To this day, this remains the largest oil field ever discovered in Australia. Production from the first platform commenced in 1969.

Through the continued exploration, development and production of oil and gas in Bass Strait, there are now 421 wells, 19 platforms, five subsea facilities and more than 800 kilometres of subsea pipelines.

Esso's activities in Bass Strait are conducted by some 300 workers who live and work offshore at any one time. They are supported by many more onshore workers, who process the oil and gas at Esso's Longford and Long Island Point plants before supplying gas to Australian customers, and liquids products to Australian and overseas customers.

Platform operations are supported by helicopters and supply vessels. A heliport based in Longford operates regular flights to transfer personnel to and from platforms. The supply vessels operate out of Barry Beach Marine Terminal, moving between platforms to load and unload cargo.

The Gippsland Basin Joint Venture has been responsible for more than 50% of Australia's crude oil and liquid production, and currently supplies more than 40% of eastern Australia's natural gas requirements. This equates to more than four billion barrels of crude oil and around eight trillion cubic feet of gas produced since production began over 50 years ago.



Location

Esso's operations are located in Bass Strait, off Victoria's Gippsland coast in Australia. The Operational Area lies entirely within the South-west Marine Region.

The facilities are located in water depths ranging 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).

Status

Ten platforms, three subsea facilities, 16 pipelines and approximately half of all wells drilled are no longer producing oil and gas.

A further three platforms are expected to progressively stop producing oil and gas during the next few years.

In parallel with Esso's investigations into re-using some of the offshore facilities for other purposes, Esso's decommissioning team is planning for the eventual decommissioning of all assets in Bass Strait.

Esso operates 19 platforms, five subsea facilities, 34 primary licensed pipelines and eight secondary licensed pipelines.

Of the 19 platforms - 15 are steel pile jacket platforms, two are concrete gravity structures and two are monotowers. There is also one steel pile jacket riser access tower.



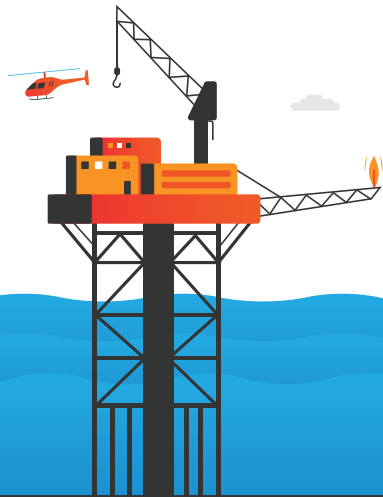
One-leg concrete gravity structure

Bream B



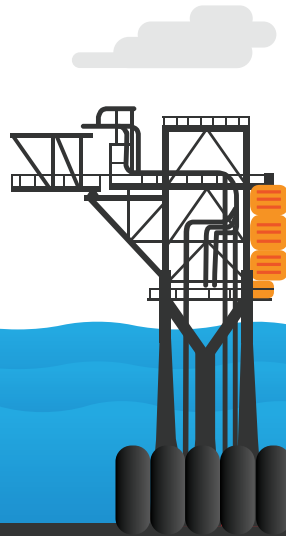
Steel pile jacket

Kingfish A	Whiting	Snapper	Fortescue
Kingfish B	Marlin A	Flounder	Cobia
West Kingfish	Marlin B	Bream A	Mackerel
Tuna	Halibut	Barracouta	



Three-leg concrete gravity structure

West Tuna



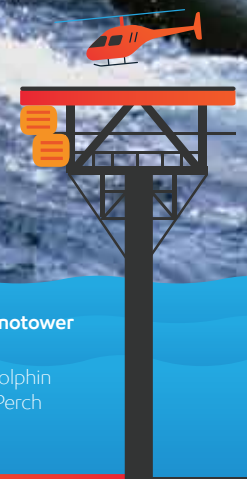
Subsea facility

Tarwhine	Blackback
Seahorse	West
Kipper	Barracouta



Monotower

Dolphin
Perch



UP CLOSE:

Planning decommissioning activities in Bass Strait

The process of decommissioning an offshore facility presents complex challenges. Decommissioning plans must consider the specific marine ecosystem, the size and weight of facilities, and the inherent risks of removing such facilities, among other factors.

Esso's approach to decommissioning considers the type of structure and unique characteristics of a specific site.

We incorporate best practices from other projects and expert advice from relevant stakeholders, including fishing communities, scientific organisations, repurposing and recycling specialists and academia.

Our Australian decommissioning team is using learnings from our experiences in other locations, and liaising closely with our decommissioning centre of expertise, to ensure our local decommissioning activities meet regulatory, community, government and importantly, our own, high expectations.

Planning and preparation for decommissioning offshore facilities can start up to 10 years prior to actual execution, which is why we're starting our detailed planning now.

ABOVE WATER REMOVAL

100%

OF TOPSIDES WILL BE REMOVED

Esso will remove the production facilities (or topsides) from the non-producing platforms for disposal onshore.

BELOW WATER REMOVAL

3 **OPTIONS**

THE DEPTH OF JACKETS TO BE REMOVED IS YET TO BE DETERMINED

Esso will either transport the removed jacket sections onshore for handling and appropriate recycling and disposal; or potentially reef them by placing the removed jacket sections on the seabed at a to-be-determined location, subject to regulatory approval and detailed analysis.



→ Kingfish A platform



PRESERVING MARINE HABITATS

The platform jackets that have been in place for several decades provides opportunities for marine ecosystems to develop which otherwise wouldn't exist. For example, a review of Remotely Operated Vehicle (ROV) imagery from three platforms identified 6820 individuals from 37 different species. Leaving some of these jackets in place, and the ecosystems that have developed around them, provides the opportunity for ongoing benefits for the marine environment and for stakeholders.

Esso is considering decommissioning options that deliver equal or better environmental, safety and well integrity outcomes than the base case option; and meet the As Low As Reasonably Practicable (ALARP) and acceptability Environment Plan acceptance criteria required by the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulation 2009*.

Assessing decommissioning options

Section 572 (3) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, requires Esso to remove all structures, equipment and other property that is neither used nor to be used, in connection with operations, from the title area. The obligation to fully remove all property is subject to other provisions of the Act, regulations, directions and other applicable laws. These provisions allow for a titleholder to propose variations to complete removal if the variations meet acceptance criteria.

As such, Esso has identified a range of decommissioning options that include the 'base case' required by the Act as well as consideration of other feasible options.

Esso is undertaking an evaluation of the decommissioning options to assess environmental impacts and risks that may arise, as well as technical, safety and socio-economic aspects.

This evaluation is based on global studies and literature, supplemented by further assessments using Bass Strait specific studies, including environmental sampling, undertaken by Esso. It will evaluate each option against applicable Commonwealth and State legislation, codes, standards, treaties, conventions and practices.

Esso is seeking stakeholder input and perspectives throughout the process.

→ Whiting platform in the Cessation of Production stage of activity with wells plugged and abandoned and well conductors removed



ABOUT THE OPTIONS

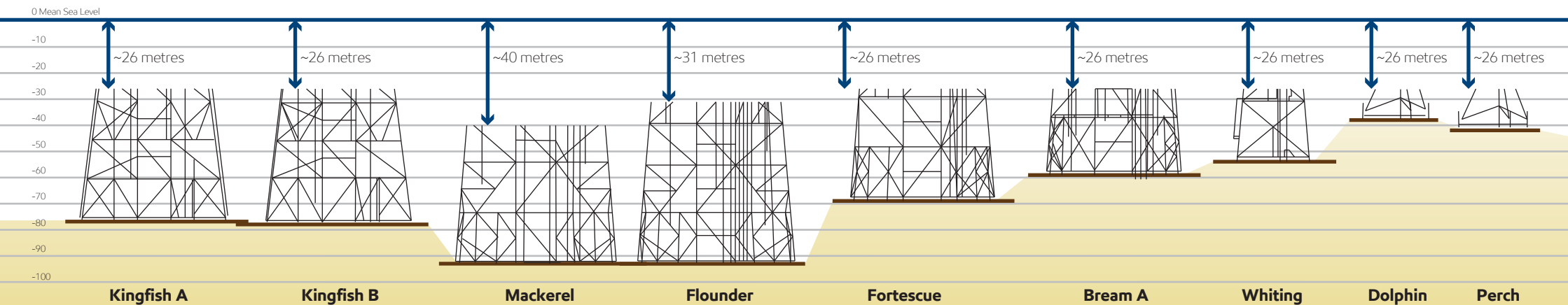
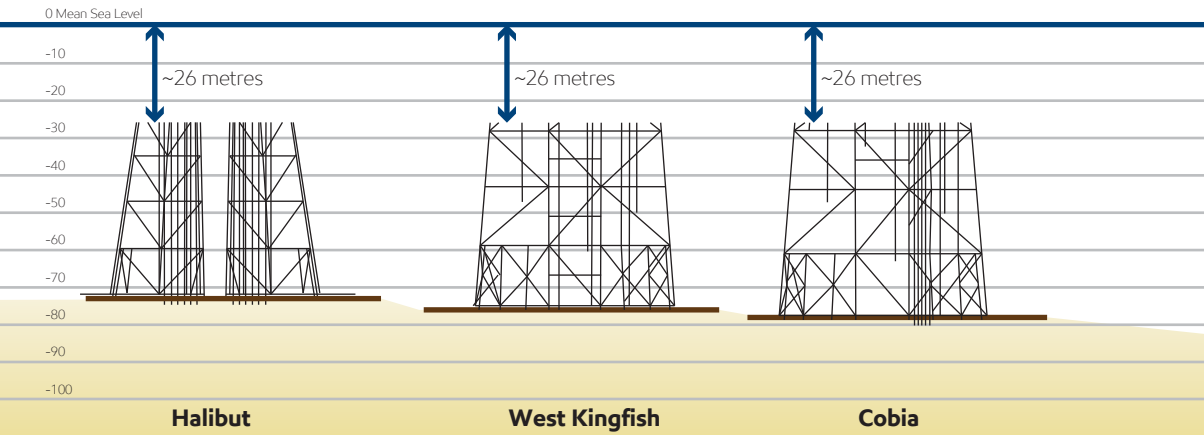
- Esso is currently considering three options for removing sections of the non-producing platform jackets to provide sufficient water depth clearance to allow vessels safe passage over the remaining structure.
- The three options involve cutting the jacket at:
 - ~26 metres below Mean Sea Level
 - ~55 metres below Mean Sea Level
 - As close as practicable to the sea bed, which is unlikely to be over-trawlable.
- These options are applicable to the seven non-producing steel pile jacket platforms (Kingfish A, Kingfish B, Mackerel, Flounder, Fortescue, Bream A and Whiting), both monotowers (Dolphin and Perch) and three platforms nearing end-of-production (Cobia, Halibut and West Kingfish).
- Decommissioning options for the producing steel pile jacket platforms, concrete gravity structures, pipelines and subsea facilities will be addressed at a later stage.

1 OPTION 1

26-metre minimum water column

In the case of Mackerel and Flounder, the cut of platform depth is increased to avoid cutting through larger jacket legs on these two platforms.

This option involves cutting the steel pile jackets at a minimum of 26 metres below Mean Sea Level. The top section of the jacket will be removed and the lower section of the jacket will be left in place.



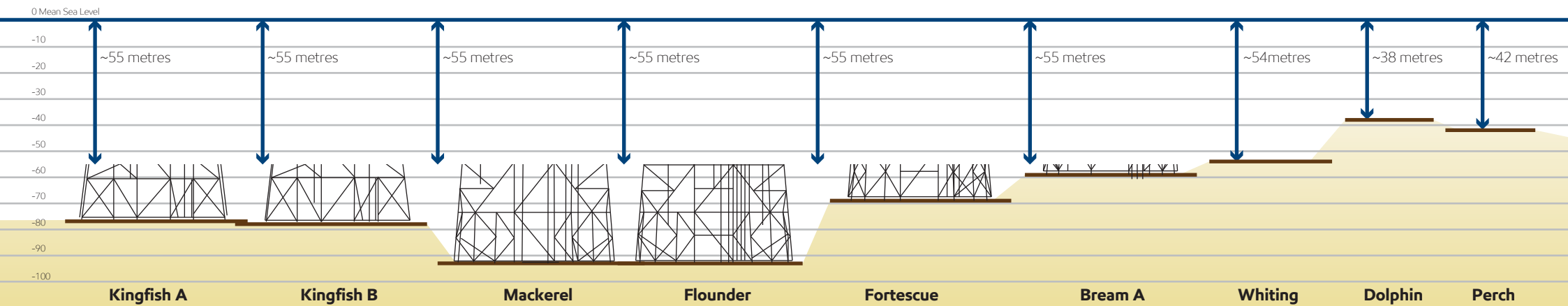
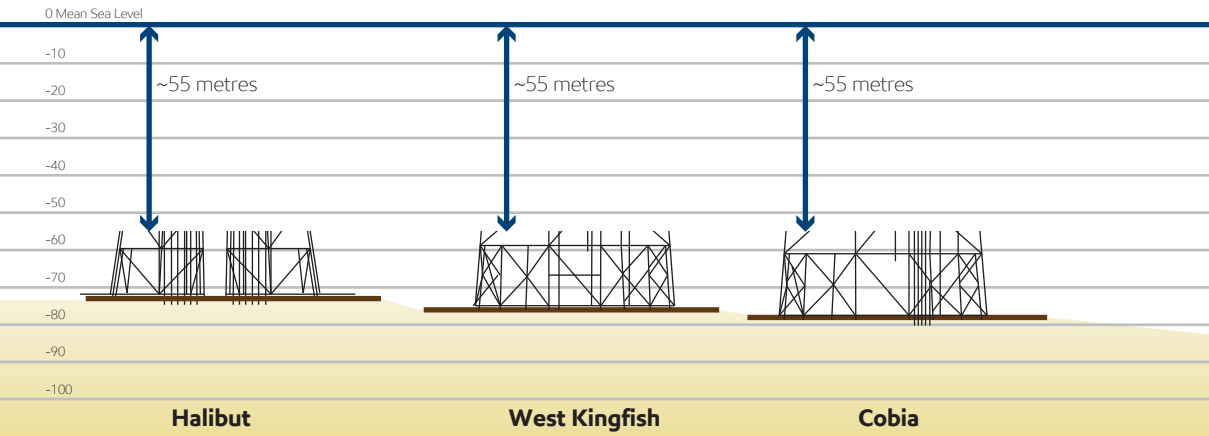
2 OPTION 2

55-metre minimum water column

Dolphin and Perch monotowers have a total depth of less than 55 metres and are gravity based (that is sitting on the seabed). As such they will be fully removed under this option.

Whiting which also has a total depth of less than 55 metres will be cut as close as practicable to just above the sea bed, which is unlikely to be over-trawlable.

This option involves cutting the steel pile jackets at a minimum of 55 metres below Mean Sea Level. The top section of the jacket will be removed and the lower section of the jacket will be left in place.



3 BASE CASE

Cut above mudline

This option involves cutting the steel pile jackets as close as practicable to the sea bed, which is unlikely to be over-trawlable. The top section of the jacket will be removed and the lower section of the jacket will be left in place. This option avoids extensive dredging which would be required to remove jacket legs beneath the seabed.

Dolphin and Perch platforms will be fully removed down to the seabed.



CHOOSING AN OPTION

Environmental studies will inform decision-making

Studies are underway to inform the decision making process when considering these three options. This includes carrying out environmental surveys and studies to assess the value of existing marine habitat around the structures and what impacts might result if structures are removed.

Esso will seek expert advice

Esso will commission maritime consultants to assess risks to shipping and fishing consultants to assess risks to fishing.

Esso is evaluating recycling and disposal options

Esso will evaluate possible locations for onshore handling and appropriate recycling and disposal of removed jacket sections. This includes conducting studies to evaluate benefits and risks of placing cut jacket sections on the seabed.

Esso Australia is committed to engaging with the communities where we operate and helping our stakeholders to understand our business.

Esso has been consulting with stakeholders potentially affected by this campaign through a number of different channels.

While some community consultations have occurred, Esso welcomes the opportunity for more face-to-face meetings and will continue to keep interested stakeholders informed of proposed activities throughout the planning phase and into the operational phase.

Through its stakeholder engagement framework, Esso aims to keep government, non-government organisations and community stakeholders informed about decommissioning activities. This includes ensuring that stakeholders are consulted on an ongoing basis about matters that affect them.

Key principles of Esso's stakeholder engagement framework include:

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

Throughout decommissioning, Esso will maintain ongoing consultation with relevant community, government and non-government stakeholders to share information, receive feedback and respond to any concerns.

Stakeholder consultation is conducted in a way that suits the needs of stakeholders and includes meetings, individual discussions, emails, fact sheets, forums and round tables, website updates, social media posts, and media announcements. All communication with stakeholders is documented, with any issues or grievances raised registered.

Actions are tracked to resolve issues or grievances, and feedback is provided to stakeholders as required.

A Stakeholder Engagement Plan has been developed for the decommissioning of Bass Strait facilities. The Stakeholder Engagement Plan aims to ensure relevant people as described in subregulation 11A (1) of the *Offshore Petroleum Greenhouse Gas Storage (Environment) Regulations 2009* are consulted about proposed decommissioning options.

Esso will address questions and consider feedback from stakeholders throughout this campaign.

If you have any specific questions or feedback about any of these activities please contact Esso at: consultation@exxonmobil.com or call 03 9261 0260.





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

consultation@exxonmobil.com

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

+61 3 9261 0000

or writing to:

GPO Box 400 Melbourne VIC 3001

© Esso Australia Pty Ltd 2022
ABN 49 000 018 566
exxonmobil.com.au

Esso Australia Resources Pty Ltd ("EARPL") and BHP Petroleum (Bass Strait) Pty Ltd are 50:50 co-venturers in a joint venture for the exploration, development and production of oil and gas from Bass Strait and are the owners of the Longford Facility. EARPL is the designated Operator of the joint venture under the Gippsland Basin Joint Venture Operating Agreement. EARPL receives services, including personnel, from its wholly owned subsidiary, Esso Australia Pty Ltd ("Esso"). Esso is "operator" as defined in the *Occupational Health and Safety Regulations 2007*.