

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.



Plug and abandonment activities with Rig 22 on Flounder platform

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.

“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 non-producing 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 the proposed approach for 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, Mackerel 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 non-producing 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 abandonment 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.

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.

Status

Figure 1 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 timeline for decommissioning activities (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.

The status of all facilities and pipelines as at the end of 2023 is shown in Figure 2.

During 2023, Esso continued to progress open and ongoing Directions, with progress updates summarised in Appendix B.

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.



Andy Hospodar

Senior Project Manager Australia Major Projects
Esso Australia Resources Pty Ltd

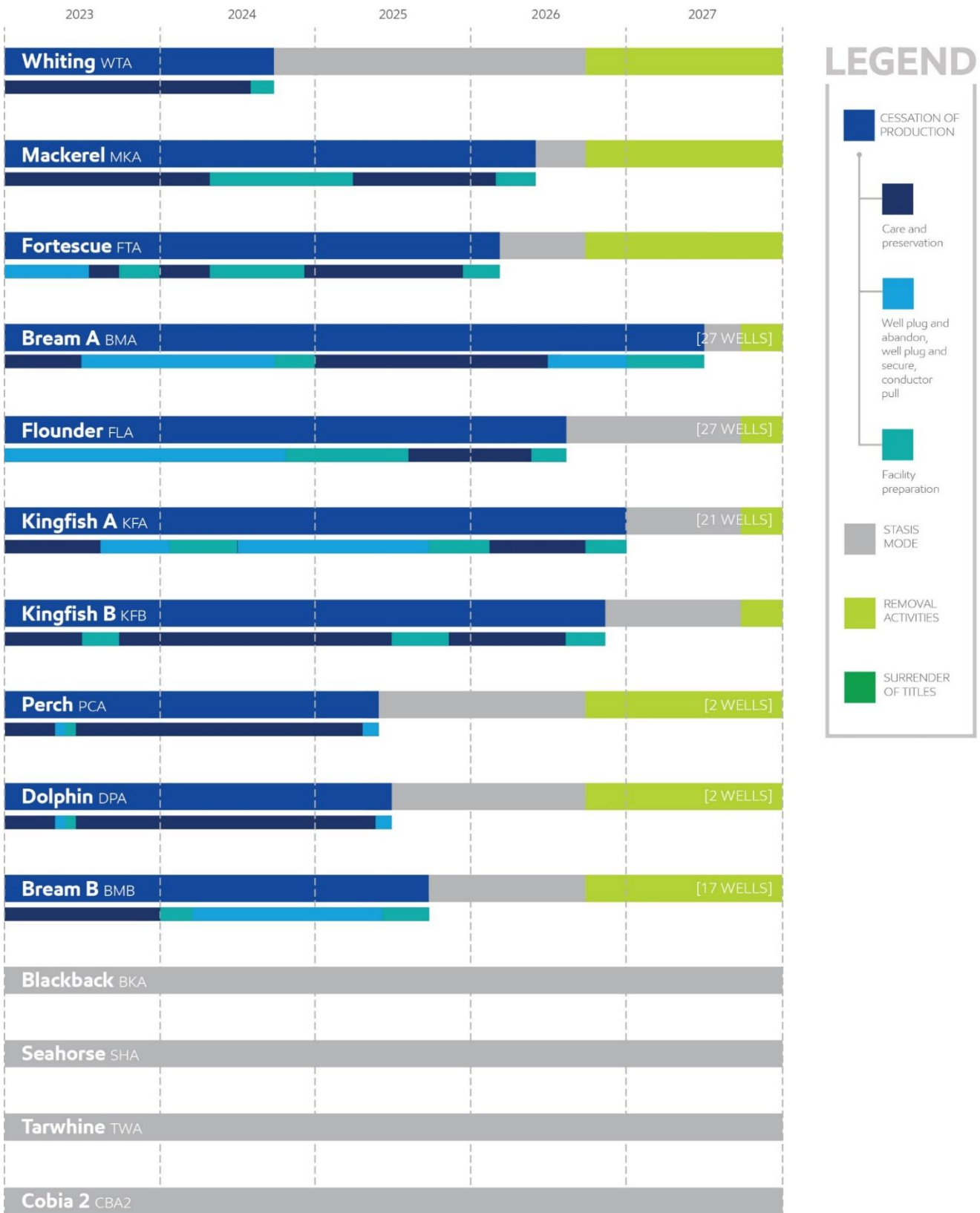


Figure 1: Estimated timing of activities for currently non-producing platforms and subsea facilities

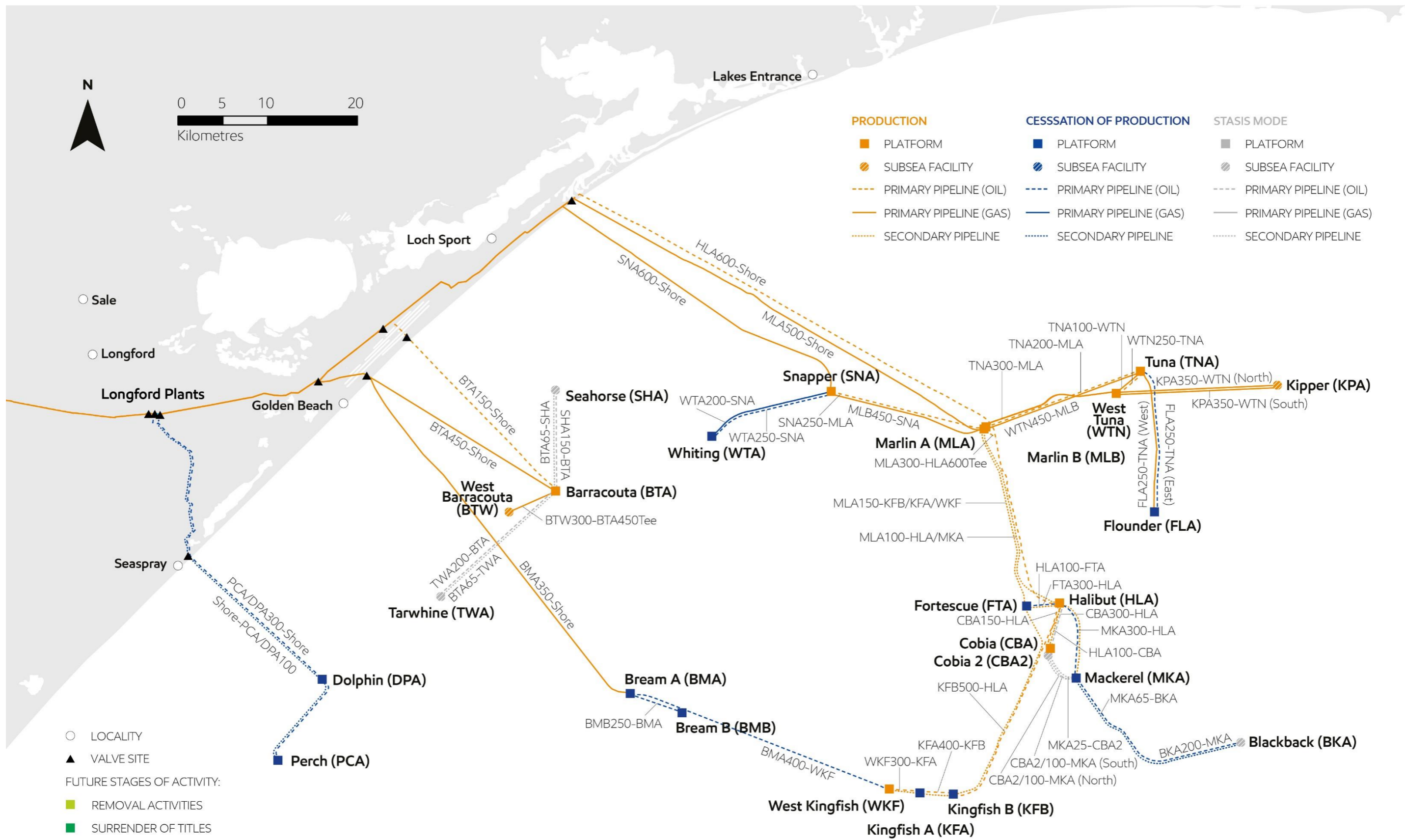


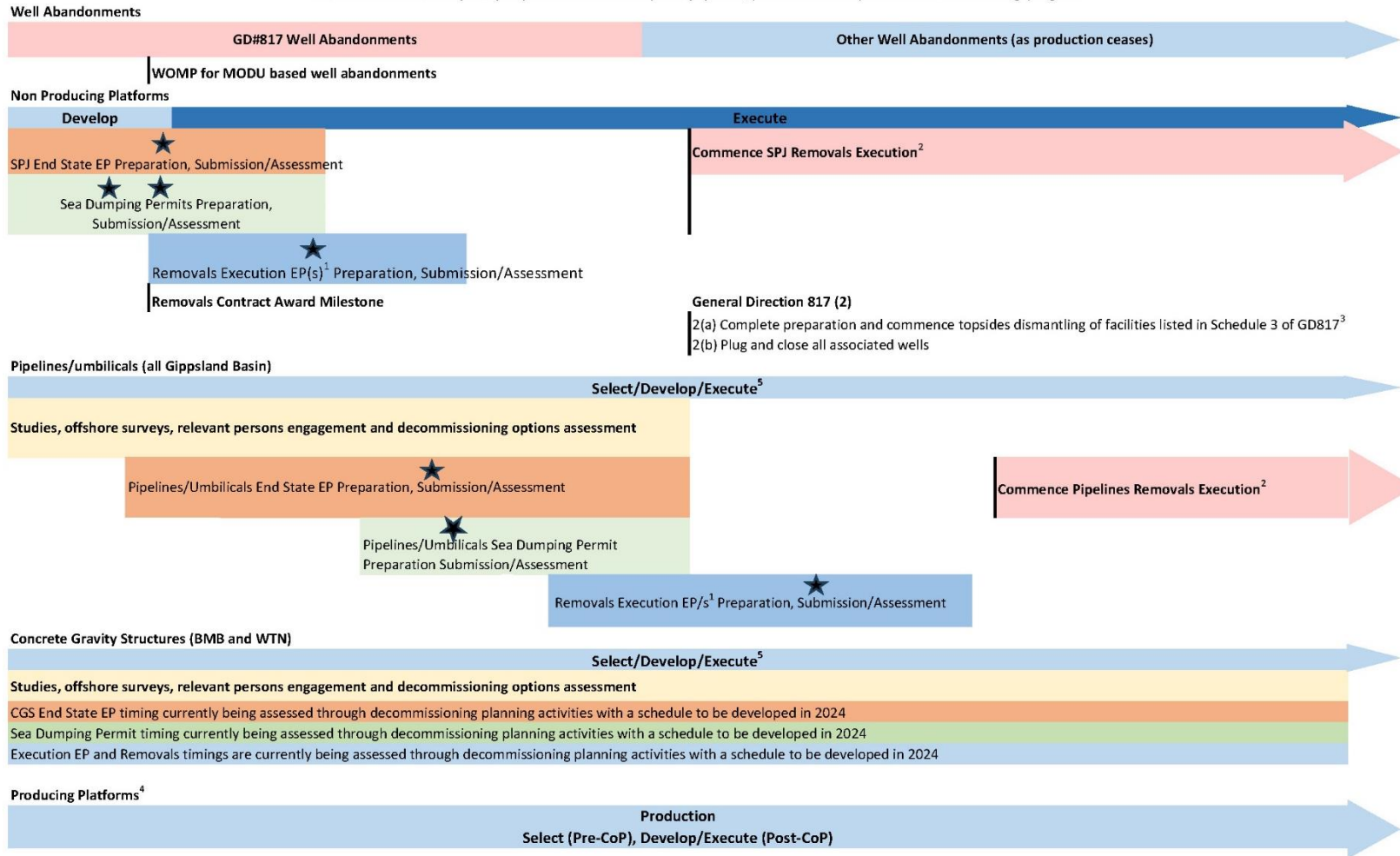
Figure 2: Status of facilities and pipelines as at December 2023

Appendix A

Indicative timeline:
Decommissioning
milestones and direction



Window: Direction 817 (4 & 5) Inspect maintain and repair equipment, publish annual reports on decommissioning progress



★ 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

General 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
1b	Submit a report to NOPSEMA within 180 days from the date this direction is signed, detailing the outcomes of this review and recommended measures.	Submit report to NOPSEMA		
1c	Implement reasonable and practicable measures based on the review and recommendations that would likely reduce the timeframe for commencing and completing all necessary decommissioning activities.	Implement reasonable and practicable measures that would likely reduce the timeframe for commencing and completing all necessary decommissioning activities		
2a	Complete all preparatory decommissioning activities and commence the topside dismantling campaign as soon as reasonably practicable, and no later than 30 September 2027, for removal of all structures, property, and equipment no longer in use that are associated with facilities listed in Schedule 3.	Regulatory compliance for all activities 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
2b	To plug or close, to the satisfaction of NOPSEMA, all wells associated with the titles listed in Schedule 3, as soon as reasonably practicable and no later than 30 September 2027.	Plug and abandon all wells associated with Campaign #1 assets Well Operations Management Plan for Well Abandonment	Mackerel, Kingfish B and Fortescue plug and abandon campaigns completed Revision finalised in December 2022	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 Next revision due December 2027

General Direction 817 Direction		Key work plan items	Progress to date	Look ahead next 12 months
3a	Conduct an integrity assessment of all equipment, structures and property associated with the Perch and Dolphin facilities located within titles VIC/L15 and VIC/L17, to demonstrate that full removal of structures, property and equipment will not be precluded.	Complete Perch and Dolphin integrity assessments	Perch and Dolphin integrity assessments completed	Direction closed on 28 September 2021
3b	Provide a preliminary report on the outcomes of the integrity assessment of Perch and Dolphin facilities to NOPSEMA within 90 days from the date of this direction is signed, and a detailed report no later than 31 January 2022.	Submit reports to NOPSEMA	Three reports submitted to NOPSEMA on 16 August 2021	Direction closed on 28 September 2021
3c	Conduct a separate integrity assessment of all equipment, structures and property, other than those identified at Direction 3(a) that are in a non-producing state, within the titles listed in Schedule 3, to demonstrate that full removal of structures, property and equipment will not be precluded.	Complete remaining facility integrity assessments	Facility integrity assessments completed	Direction closed on 10 March 2022
3d	Provide a report on outcomes of the integrity assessment conducted as required under Direction 3(c) to NOPSEMA as soon as practicable and no later than 31 January 2022.	Submit reports to NOPSEMA	Nine reports submitted to NOPSEMA on 31 January 2022	Direction closed on 10 March 2022
4a	<p>The registered holder must undertake inspection, maintenance and repair activities on all property and wells associated with facilities listed in Schedule 3 to ensure:</p> <ol style="list-style-type: none"> 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. 	<p>Continue to implement the following established systems across all assets:</p> <ul style="list-style-type: none"> Facility Integrity Management System Well Operations Management Plan Offshore asset Safety Cases <p>Conduct platform maintenance review workshops throughout 2023</p>	<p>Facilities integrity management:</p> <ul style="list-style-type: none"> 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 <p>Well work:</p> <ul style="list-style-type: none"> Completed all well plug and abandonments for Fortescue, Dolphin and Perch 	<p>Continue to implement the following established systems across all assets:</p> <ul style="list-style-type: none"> Facility Integrity Management System Well Operations Management Plan Offshore asset Safety Cases <p>Conduct platform maintenance review workshops throughout 2024</p>

General Direction 817 Direction		Key Work Plan Items	Progress to date	Look ahead next 12 months
4a cont.			<ul style="list-style-type: none"> Transported removed conductors to Esso's Barry Beach terminal for storage until final disposal <p>Well Operations Management Plans:</p> <ul style="list-style-type: none"> <i>Gippsland Basin Wells Operations Management Plan</i> revision approved for issue in December 2022 <p>Safety Cases:</p> <ul style="list-style-type: none"> 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 <p>Platform maintenance:</p> <ul style="list-style-type: none"> Inspections completed on all non-producing facilities No issues were identified that would preclude full removal obligations under Section 572 (2) of the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> 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	<i>Bass Strait Operations Decommissioning Report 2021</i> submitted prior to 31 December 2021; <i>Bass Strait Operations Decommissioning Report 2022</i> submitted prior to 31 December 2022; and <i>Bass Strait Operations Decommissioning Report 2023</i> submitted prior to 31 December 2023	Prepare <i>Bass Strait Operations Decommissioning Report 2024</i>
5b	The report submitted under Direction 5(a) must be to the satisfaction of NOPSEMA and submitted to NOPSEMA no later than 31 December each year.			
5c	Publish the report on the registered holders' website within 14 days of obtaining NOPSEMA satisfaction under Direction 5(b).			



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