

North West Shelf Trunklines Operations (State Waters) Environment Plan

Dampier Archipelago, North-West Australia

Activity overview

The North West Shelf (NWS) Trunklines Operations Environment Plan (EP) is a five-year revision of the in-force EP which covers:

- Continued operation of the two NWS trunklines (1TL and 2TL) within State waters.
- Export of gas and condensate via the two trunklines from the NWS offshore facilities to the Karratha Gas Plant (KGP) on the Burrup Peninsula.
- Vessel-based routine and non-routine inspection, monitoring, maintenance and repair (IMMR) activities along the trunklines in State waters.

Location

- In State waters, north west of the KGP on the Burrup Peninsula (**Figure 1**).
- The length of 1TL and 2TL in State waters is 29.7 km and 29.2 km, respectively.
- The trunklines fall within the limits of Port of Dampier.

Water depth

- From shore to ~39-40 m deep at the State/ Commonwealth waters boundary (outer limit of Coastal Waters).

Timing

- 1TL installed in 1982 and 2TL installed in 2002.
- End of design life for 1TL and 2TL is 2041 and 2042, respectively.
- Decommissioning is not planned during the next 5 years.

Duration

- Operates 24 hours a day, 365 days a year.
- Vessel-based IMMR activities take place, as required.

Joint Venture

- Operator – Woodside Energy Ltd.
- Joint Venture – BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIMI) Pty Ltd, Shell Australia Pty Ltd, Woodside Energy (North West Shelf) Pty Ltd.

We would like to hear from you

We would like relevant authorities and other relevant interested persons or organisations who may be affected by the proposed activity to have the opportunity to provide feedback.

Woodside consults relevant authorities and other relevant interested persons or organisations when developing an Environment Plan (EP) to confirm current measures or identify additional measures, which could lessen or avoid potential adverse effects of the proposed activity on the environment.

Woodside aims to ensure the proposed activity is consistent with the principles of ecologically sustainable development, by which the environmental impacts and risks of the activity are reduced to as low as reasonably practicable (ALARP) and to an acceptable level.

If you are an individual, organisation or community group and believe you may be impacted by the activities under this EP, we would like your feedback by **15 July 2025**.

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A summary of the proposed activity and location is provided in **Table 1** and **2**.



Woodside Energy recognises Aboriginal and Torres Strait Islander peoples as Australia's First Peoples. We acknowledge their connection to land, waters and the environment and pay our respects to ancestors and Elders, past and present. We extend this recognition and respect to First Nations peoples and communities around the world.

Activity Location

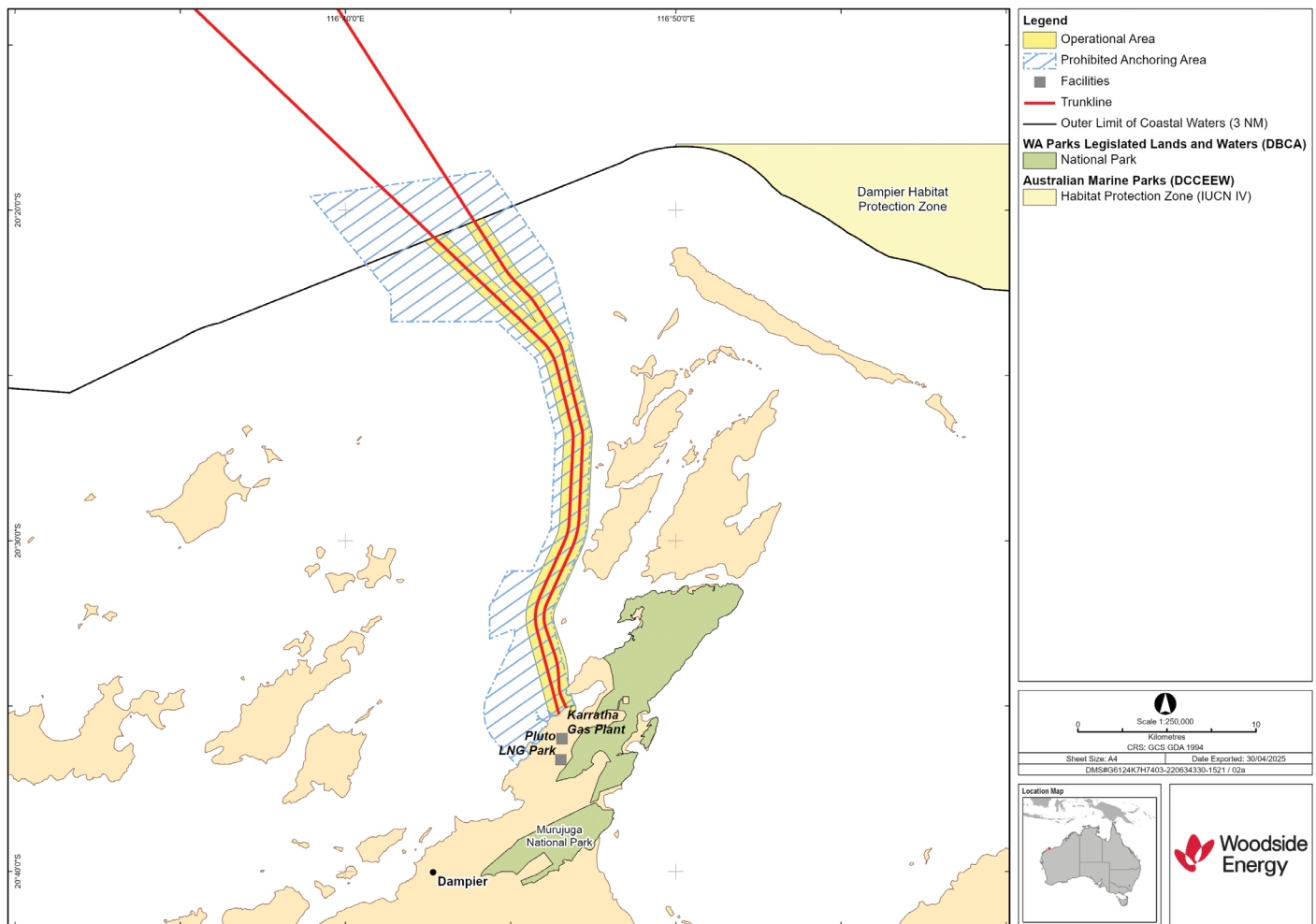


Figure 1. Location of the Pluto Trunkline Operational Area (State Waters)

Table 1 - Activity and location summary

North West Shelf Trunklines Operations Environment Plan	
Activity details	- Each trunkline is ~ 134 km in length. The portion of 1TL in State waters is 29.7 km, and the portion of 2TL in State waters is 29.2 km. Both trunklines are predominantly trenched and buried. - Routine operation of the trunklines. - Vessel-based routine and non-routine IMMR activities along the trunklines in State waters.
Pipeline licences	TPL/15 and TPL/16
Infrastructure	- NWS Trunklines: 1TL 40" carbon steel trunkline. 2TL 42" carbon steel trunkline.
Vessels	Crewed and uncrewed support vessels carrying out activities such as subsea IMMR.
Operational Area and exclusion zones	The Operational Area includes an area 500 m either side of each of the two trunklines from the shoreline crossing to the State/Commonwealth water boundary (~3 nm offshore).
Communication with mariners	Commercial fishers and other marine users are not proposed to be excluded from using the Operational Area.
Distance to nearest marine park/nature reserve	- Dampier Marine Park - Habitat Protection Zone (IV) (Cth) - 35 km east of the Operational Area. - Great Sandy Islands Nature Reserve (WA) - 62 km west of the Operational Area.

Table 2 – Approximate locations of key infrastructure within the scope of the North West Shelf Trunklines Operations EP

Structure	Water Depth (m)	Latitude	Longitude	Titles
Trunkline route corridor location				
1TL at the shoreline crossing to the State / Commonwealth waters boundary	~0 - ~39	20°35'14.020"S - 20°20'49.498"S	116°46'27.431"E - 116°42'40.809"E	TPL/15
2TL at the shoreline crossing to the State / Commonwealth waters boundary	~0 - ~40	20°35'00.77"S - 20°20'20.265"S	116°46'39.758"E - 116°43'54.167"E	TPL/16



Figure 2. Example of support vessels that may be used for IMMR activities.
Photo credit: Fugro.

Impacts/Risks, and Mitigation and/or Management Measures

Woodside assessed the impacts and risks to the environment arising from the planned activities and unplanned events. This assessment considers the timing, duration and location of the activities. Proposed mitigation and management measures are summarised in **Table 3**. Further details will be provided in the EP.

In preparing the EP, Woodside's intent is to minimise environmental, social and cultural impacts and risks associated with the proposed activities, and we seek your feedback to inform our decision-making.

Table 3 – Summary of key impacts and risks and proposed management measures

Impact/Risk	Description of Source of Impact/Risk	Description of Impact/Risk	Proposed Mitigation and/or Management Measure
Planned activities (routine and non-routine)			
Physical presence: <i>interaction with other marine users</i>	Physical presence of trenched and buried subsea infrastructure as well as support vessels.	- Localised impact with no lasting effect arising from: - Subsea infrastructure with potential to interact with other marine users such as commercial fisheries where fishing methods are at or near the seabed. - Displacement or exclusion of other marine users during IMMR activities.	- Infrastructure marked on nautical charts. - Support vessels adhere to regulatory requirements for navigational safety and Port of Dampier Handbook requirements.
Physical presence: <i>disturbance to seabed</i>	- Seabed disturbance may result from the following activities: - Presence of subsea infrastructure. - Support vessels and activities.	- Slight and low-level impact to the seabed arising from: - Localised modification of seabed habitat within the Operational Area. - Localised change in habitat, water quality, and sediment quality, which may affect fauna. - Indirect disturbance from suspended sediment and sediment deposition due to interactions with the seabed.	- Support vessels used for IMMR activities will be dynamic positioning capable (vessel will not anchor). - IMMR activities are undertaken in accordance with Woodside's risk-based inspection process. - Comply with regulatory requirements for Underwater Cultural Heritage. - Manage unexpected finds of potential underwater cultural heritage sites/features, including First Nations underwater cultural heritage in accordance with Woodside's Unexpected Finds Procedure. - Train relevant vessel crew about the potential to encounter underwater cultural heritage and their obligation to follow the Unexpected Finds Procedure.
Acoustic emissions: <i>generation of noise during support vessel operations</i>	- Noise generated within the Operational Area from: - Subsea infrastructure. - Support vessels and activities.	- Localised impact with no lasting effect arising from: - Behavioural impacts to marine fauna around support vessels.	- Support vessels comply with <i>EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans</i>. - Vessels will not travel greater than 6 knots within 300m of a turtle (caution zone). If the turtle shows signs of being disturbed, vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots. - Vessels will not travel greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark. - Environmental and Cultural Heritage induction of all relevant marine crew.
Non-routine discharge of chemicals	Discharge of chemicals during subsea activities.	- Slight and low-level impact arising from: - Localised and temporary effects to water quality and marine biota.	- Support vessels comply with Marine Orders to prevent pollution events as well as Port of Dampier Handbook requirements. - Assessment of all chemicals used following Woodside's Chemical Selection and Assessment Environment Guideline.

Impact/Risk	Description of Source of Impact/Risk	Description of Impact/Risk	Proposed Mitigation and/or Management Measure
Routine and non-routine vessel discharges	- Sewage, grey water and putrescible waste. - Deck, bilge and drain water. - Discharge of reverse osmosis brine and cooling water.	- Localised impact with no lasting effect arising from: - Change in water quality, which may affect fauna.	- Support vessels comply with Marine Orders to prevent pollution events as well as Port of Dampier Handbook requirements. - Assessment of all chemicals used following Woodside's Chemical Selection and Assessment Environment Guideline.
Routine and non-routine atmospheric and Greenhouse Gas (GHG) emissions	Atmospheric and GHG emissions associated with the use of internal combustion engines and incinerators on support vessels.	- Localised impact arising from: - Reduction in air quality in the immediate vicinity of support vessels.	- Compliance with regulatory requirements for GHG emissions reporting. - Support vessels comply with Marine Orders for pollution prevention to air.
Routine light emissions: support vessels	Support vessels and submersible equipment will use external lighting to conduct safe operations.	- Slight and low-level impact arising from: - Change in ambient light in proximity of support vessels and submersible equipment, which may affect the behaviour of marine fauna including seabirds.	- Support vessel and submersible equipment lighting limited to the minimum required for navigational and safety requirements, except for emergency events. - Implementation of Woodside's Seabird Management Plan. - Environmental induction of all relevant marine crew. - Support vessels comply with National Light Pollution Guidelines for Wildlife.
Unplanned events (accidents/incidents)			
Unplanned hydrocarbon release: vessel collision or grounding	Loss of marine vessel separation or grounding resulting in release of hydrocarbons.	- Potential major impact arising from: - Long-term impacts to sensitive nearshore areas of offshore islands and coastal shorelines. - Reduction in water and sediment quality. - Disruption to marine fauna including protected species. - Interference with or displacement of other marine users including activities of other regional petroleum activities.	Preventing vessel collision and grounding: - Support vessels comply with Marine Orders to prevent vessel collisions. - Vessel-based activities will be undertaken in accordance with Port of Dampier Handbook i.e. use of Vessel Traffic System (VTS) and adherence to speed restrictions. Spill response arrangements: - In the event of a spill, emergency response activities will be implemented in accordance with the Oil Spill Contingency Plan (OSCP). - Arrangements supporting the OSCP will be tested to ensure the OSCP can be implemented as planned.
Unplanned hydrocarbon release: trunkline loss of containment	Loss of trunkline integrity resulting in a release of hydrocarbons.	- Potential major impact arising from: - Long-term impacts to sensitive nearshore areas of offshore islands and coastal shorelines. - Reduction in water and sediment quality. - Disruption to marine fauna including protected species. - Interference with or displacement of other marine users including activities of other regional petroleum activities.	Preventing loss of trunkline containment - The activity is operated in compliance with an accepted Safety Case. - Woodside management system implemented during operations to maintain infrastructure integrity, communication systems and safety instrumented systems to an acceptable standard. - Within the port limits. unauthorised vessels are prohibited from anchoring within 0.5 miles of the trunklines. Spill response arrangements: - In the event of a spill, emergency response activities will be implemented in accordance with the OSCP. - Arrangements supporting the OSCP will be tested to ensure the OSCP can be implemented as planned.
Unplanned discharges: Chemical and minor hydrocarbon spills (deck and subsea spills)	Discharge of chemicals and hydrocarbons from support vessels and submersible equipment.	- Potential localised impact with no lasting effect arising from: - Reduction in water quality. - Disruption to marine fauna including protected species.	- Support vessels comply with Marine Orders to prevent pollution events as well as Port of Dampier Handbook requirements. - Assessment of all chemicals used following Woodside's Chemical Selection and Assessment Environment Guideline.

Impact/Risk	Description of Source of Impact/Risk	Description of Impact/Risk	Proposed Mitigation and/or Management Measure
Unplanned discharges: hazardous and non-hazardous solid waste management	Discharge of non-hazardous and hazardous solid waste from support vessels or submersible equipment.	- Potential localised impact with no lasting effect arising from: - Reduction in water and sediment quality. - Disruption to marine fauna including protected species.	- Support vessels comply with Marine Orders to prevent pollution events as well as Port of Dampier Handbook requirements. - Implement waste management procedures which provide for safe handling and transportation, segregation and storage and appropriate classification of waste generated. - If safe and practicable to do so, solid waste accidentally dropped overboard will be recovered.
Unplanned physical presence: seabed disturbance	Loss of equipment from support vessels or submersible equipment.	- Potential slight and low-level impact arising from: - Localised modification of seabed habitat within the Operational Area. - Localised change in habitat, water quality, and sediment quality, which may affect fauna. - Indirect disturbance from suspended sediment and sediment deposition due to interactions with the seabed.	- Apply safe work procedures to prevent dropped objects from support vessels and during deployment and retrieval of equipment. - If safe and practicable to do so, dropped objects will be recovered. - Environmental induction of all relevant marine crew.
Unplanned physical presence: interactions with marine fauna	Support vessels or submersible equipment colliding with marine fauna.	- Potential slight and low-level impact arising from: - Injury or death to marine fauna (single individual) including protected species.	- Support vessels comply with <i>EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans</i>, to reduce the likelihood of an accidental collision occurring. - Vessels will not travel greater than 6 knots within 300m of a turtle (caution zone). If the turtle shows signs of being disturbed, vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots. - Vessels will not travel greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark. - Environmental induction of all relevant marine crew.
Physical presence: Introduction of invasive marine species (IMS)	IMS may be present on support vessels or submersible equipment, or in ballast water tanks.	- Potential moderate impact arising from: - Introduction and establishment of IMS in the Operational Area.	- Ballast water and biofouling will be managed according to the Australian Ballast Water Management Requirements and the Australian Biofouling Management Requirements, as applicable. - Woodside's IMS risk assessment process will be applied to vessels and immersible equipment entering the Operational Area.

Feedback

Woodside consults relevant authorities and other relevant interested persons or organisations in the course of preparing Environment Plans to notify them of the activity and to obtain relevant feedback to inform its planning for proposed petroleum activities.

If you would like to comment on the proposed activities outlined in this information sheet, please provide feedback to Woodside by **15 July 2025** via:

consultation@feedback.woodside.com

Toll free: 1800 442 977

You can subscribe on our website to receive Consultation Information Sheets for proposed activities:

woodside.com/what-we-do/consultation-activities

Please note that stakeholder feedback will be communicated to Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) as required under legislation. Woodside will communicate any material changes to the proposed activity to affected relevant authorities and other relevant interested persons or organisations as relevant and appropriate.

Your feedback and our response will be included in our EP which will be submitted to DEMIRS for acceptance in accordance with the *Petroleum (Submerged Lands) (Environment) Regulations 2012* (WA) and support other regulatory processes associated with the planned activities (which may or may not be confidential).

Personal information collected in the course of consultation will be handled in accordance with Woodside's Environment Plan Privacy Collection Notice. To understand how personal information will be handled, please visit:

woodside.com/what-we-do/consultation-activities

