ANNEX A: NET ENVIRONMENTAL BENEFIT ANALYSIS DETAILED OUTCOMES

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A NEBA has been conducted to assess the net environmental benefit of different response techniques to selected receptors in the event of an oil spill from the PAP for marine diesel (representing platform surface release during operations). The complete list of potential receptor locations within the EMBA within the PAP is included in the EP. As there were no RPAs identified, the locations utilised for the NEBA were based on receptors closest to the Scarborough well site. The detailed NEBA assessment outcomes are shown below.

Table A-1: NEBA assessment technique recommendations for a hydrocarbon release of marine diesel caused by vessel collision (CS-01)

Receptor	Monitor and Evaluate	Containment and Recovery	Dispersant application: sub-sea	Dispersant application: > 20 m water depth and > 10 km from shore/reefs	Shoreline protection	Shoreline clean-up (manual)	Shoreline clean-up (mechanical)	Shoreline clean-up (chemical)	Oiled Wildlife Response	In situ burning	Mechanical dispersion	Source control
Open Commonwealth waters (Operational Area)	Yes	No	No	No	No	No	No	No	Potentially	No	No	Yes
Gascoyne AMP	Yes	No	No	No	No	No	No	No	Potentially	No	No	Yes

Overall assessment

Overall assessment												
Sensitive receptor (Sites identified in EP)	Monitor and Evaluate	Containment and Recovery Sub-sea		Dispersant application: > 20 m water depth and > 10 km from shore/reefs	Shoreline protection	Shoreline clean-up (manual)	Shoreline clean-up (mechanical)	Shoreline clean-up (chemical)	Oiled Wildlife Response	In situ burning	Mechanical dispersion	Source control
Is this response Practicable?	Yes	No	No	No	No	No	No	No	Potentially	No	No	Yes
NEBA identifies Response potentially of Net Environmental Benefit?	Yes	No	No	No	No	No	No	No	Potentially	No	No	Yes

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NEBA Impact Ranking Classification Guidance

To reduce variability between assessments, the following ranking descriptions have been devised to guide the workshop process:

			Degree of impact ⁶	Potential duration of impact	Equivalent Woodside Corporate Risk Matrix Consequence Level
	3P	Major	Likely to prevent: behavioural impact to biological receptors behavioural impact to socio-economic receptors e.g. changes to day-today business operations, public opinion/behaviours (e.g. avoidance of amenities such as beaches) or regulatory designations.	Decrease in duration of impact by > 5 years	N/A
Positive	2P	Moderate	Likely to prevent: significant impact to a single phase of reproductive cycle of biological receptors detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socioeconomic receptors.	Decrease in duration of impact by 1–5 years	N/A
	1P	Minor	Likely to prevent impacts on: significant proportion of population or breeding stages of biological receptors socio-economic receptors such as: significant impact to the sensitivity of protective designation; or significant and long-term impact to business/industry. 	Decrease in duration of impact by several seasons (< 1 year)	N/A
	0	Non-mitigated spill impact	No detectable difference to unmitigated spill scenario.		
	1N	Minor	Likely to result in: behavioural impact to biological receptors behavioural impact to socio-economic receptors e.g. changes to day-to-day business operations, public opinion/behaviours (e.g. avoidance of amenities such as beaches), or regulatory designations.	Increase in duration of impact by several seasons (< 1 year)	Increase in risk by one sub-category, without changing category (e.g. Minor (E) to Minor (D))
Negative	2N	Moderate	Likely to result in: significant impact to a single phase of reproductive cycle for biological receptors; or detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socioeconomic receptors. This level of negative impact is recoverable and unlikely to result in closure of business/industry in the region.	Increase in duration of impact by 1–5 years	Increase in risk by one category (e.g. Minor (D) to Moderate (C or B))
	3N	Major	Likely to result in impacts on: • significant proportion of population or breeding stages of biological receptors • socio-economic receptors resulting in either: • significant impact to the sensitivity of protective designation; or • significant and long-term impact to business/industry.	Increase in duration of impact by > 5 years or unrecoverable	Increase in risk by two categories (e.g. Minor (E) to Major (A))

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⁶ the maximum likely impact should be considered; for example, if a spill were to directly impact the behaviour that results in an impact to reproduction and/or the breeding population (such as fish failing to aggregate to spawn), then the score should be a 2 or 3 rather than a 1. Similarly, if a change in behaviour resulted in an increased risk of mortality of a population, then it should be scored as a 2 or 3.

ANNEX B: OPERATIONAL MONITORING ACTIVATION AND TERMINATION CRITERIA

Table B-1: Operational monitoring objectives, triggers and termination criteria

Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
Operational Monitoring Operational Plan 1 (OM01) Predictive modelling of hydrocarbons to assess resources at risk	OM01 focuses on the conditions that have prevailed since a spill commenced, as well as those that are forecasted in the short term (1–3 days ahead) and longer term. OM01 utilises computer-based forecasting methods to predict hydrocarbon spill movement and guide the management and execution of spill response operations to maximise the protection of environmental resources at risk. The objectives of OM01 are to: Provide forecasting of the movement and weathering of spilled hydrocarbons Identify resources that are potentially at risk of contamination Provide simulations showing the outcome of alternative response options (booming patterns etc.) to inform on- NEBA and continually assess the efficacy of available response options in order to reduce risks to ALARP	OM01 will be triggered immediately following a level 2/3 hydrocarbon spill.	The criteria for the termination of OM01 are: The hydrocarbon discharge has ceased Response activities have ceased Hydrocarbon spill modelling (as verified by OM02 surveillance observations) predicts no additional natural resources will be impacted

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Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
Operational Monitoring Operational Plan 2 (OM02)	OM02 aims to provide regular, ongoing hydrocarbon spill surveillance throughout a broad region, in the event of a spill.	OM02 will be triggered immediately following a level 2/3 hydrocarbon spill.	The termination triggers for the OM02 are: • 72 hours has
Surveillance and reconnaissance to detect hydrocarbons and resources at risk	 Verify spill modelling results and recalibrate spill trajectory models (OM01) Understand the behaviour, weathering and fate of surface hydrocarbons Identify environmental receptors and locations at risk or contaminated by hydrocarbons Inform ongoing NEBA and continually assess the efficacy of available response options in order to reduce risks to ALARP To aid in the subsequent assessment of the short- to long-term impacts and/or recovery of natural resources (assessed in SMPs) by ensuring that the visible cause and effect relationships between the hydrocarbon spill and its impacts to natural resources have been observed and recorded during the operational phase. 		elapsed since the last confirmed observation of surface hydrocarbons • Latest hydrocarbon spill modelling results (OM01) do not predict surface exposures at visible levels
Operational Monitoring Operational Plan 3 (OM03) Monitoring of hydrocarbon presence, properties, behaviour and weathering in water	OM03 will measure surface, entrained and dissolved hydrocarbons in the water column to inform decision-making for spill response activities. The specific objectives of OM03 are as follows: • Detect and monitor for the presence, quantity, properties, behaviour and weathering of surface, entrained and dissolved hydrocarbons • Verify predictions made by OM01 and observations made by OM02 about the presence and extent of hydrocarbon contamination Data collected in OM03 will also be used for the purpose of longer-term water quality monitoring during SM01.	OM03 will be triggered immediately following a level 2/3 hydrocarbon spill.	The criteria for the termination of OM03 are as follows: The hydrocarbon release has ceased Response activities have ceased Concentrations of hydrocarbons in the water are below available ANZECC/ARMCANZ (2000) trigger values for 99% species protection.

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Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
Operational Monitoring Operational Plan 4 (OM04) Pre-emptive assessment of sensitive receptors at risk	OM04 aims to undertake a rapid assessment of the presence, extent and current status of shoreline sensitive receptors prior to contact from the hydrocarbon spill, by providing categorical or semi-quantitative information on the characteristics of resources at risk. The primary objective of OM04 is to confirm understanding of the status and characteristics of environmental resources predicted by OM01 and OM02 to be at risk, to further assist in making decisions on the selection of appropriate response actions and prioritisation of resources. Indirectly, qualitative/semi-quantitative pre-contact information collected by OM04 on the status of environmental resources may also aid in the verification of environmental baseline data and provide context for the assessment of environmental impacts, as determined through subsequent SMPs.	Triggers for commencing OM04 include: Contact of a sensitive habitat or shoreline is predicted by OM01, OM02 and/or OM03 The pre-emptive assessment methods can be implemented before contact from hydrocarbons (once a receptor has been contacted by hydrocarbons it will be assessed under OM05)	The criteria for the termination of OM04 at any given location are: • Locations predicted to be contacted by hydrocarbons have been contacted • The location has not been contacted by hydrocarbons and is no longer predicted to be contacted by hydrocarbons (resources should be reallocated as appropriate)
Operational monitoring operational plan 5 (OM05) Monitoring of contaminated resources	OM05 aims to implement surveys to assess the condition of fauna and habitats contacted by hydrocarbons at sensitive habitat and shoreline locations. The primary objectives of OM05 are: Record evidence of oiled fauna (mortalities, sub-lethal impacts, number, extent, location) and habitats (mortalities, sub-lethal impacts, type, extent of cover, area, hydrocarbon character, thickness, mass and content) throughout the response and clean-up at locations contacted by hydrocarbons to inform and prioritise clean-up efforts and resources, while minimising the potential impacts of these activities. Indirectly, the information collected by OM05 may also support the assessment of environmental impacts, as determined through subsequent SMPs.	OM05 will be triggered when a sensitive habitat or shoreline is predicted to be contacted by hydrocarbons by OM01, OM02 and/or OM03.	The criteria for the termination of OM05 at any given location are: No additional response or clean-up of fauna or habitats is predicted Spill response and clean-up activities have ceased OM05 survey sites established at sensitive habitat and shoreline locations will continue to be monitored during SM02. The formal transition from OM05 to SM02 will begin on cessation of spill response and clean-up activities.

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ANNEX C: OIL SPILL SCIENTIFIC MONITORING PROGRAM

Oil Spill Environmental Monitoring

The following provides some further detail on Woodside's oil spill Scientific Monitoring Program and includes the following:

- the organisation, roles and responsibilities of the woodside oil spill scientific monitoring team and external resourcing
- a summary table of the ten scientific monitoring programs as per the specific focus receptor, objectives, activation triggers and termination criteria
- details on the oil spill environmental monitoring activation and termination decisionmaking processes
- baseline knowledge and environmental studies knowledge access via geo-spatial metadata databases
- an outline of the reporting requirements for oil spill scientific monitoring programs.

Oil Spill Scientific Monitoring - Delivery Team Roles and Responsibilities

Woodside Oil Spill Scientific Monitoring Delivery Team

The Woodside science team are responsible for the delivery of the oil spill scientific monitoring. The roles and responsibilities of the Woodside scientific monitoring delivery team are presented in Table C-1 and the organisational structure and Corporate Incident Management Team (CIMT) linkage provided in Figure C-1.

Woodside Oil Spill Scientific monitoring program - External Resourcing

In the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors, scientific monitoring personnel and scientific equipment to implement the appropriate SMPs will be provided by standby SMP contractor who hold a standby contract for SMP via the Woodside Environmental Services Panel (ESP). In the event, that additional resources are required other consultancy capacity within the Woodside ESP will be utilised (as needed and may extend to specialist contractors such as research agencies engaged in long-term marine monitoring programs). In consultation with the standby SMP contractor and/or specialist contractors, the selection, field sampling and approach of the SMPs will be determined by the nature and scale of the spill.

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Table C-1: Woodside and Environmental Service Provider – Oil Spill Scientific Monitoring Program Delivery Team Key Roles and Responsibilities

Role	Location	Responsibility
Woodside Roles	;	
SMP Lead/ Manager	Onshore	 Approves activated the SMPs based on operational monitoring data provided by the Planning Function Provides advice to the CIMT in relation to scientific monitoring Provides technical advice regarding the implementation of scientific monitoring Approves detailed sampling plans prepared for SMPs Directs liaison between statutory authorities, advisors and government agencies in relation to SMPs.
SMP Co- ordinator	Onshore	 Activates the SMPs based on operational monitoring data provided by the Planning Function Sits in the Planning function of the CIMT. Liaises with other CIMT functions to deliver required logistics, resources and operational support from Woodside to support the Environmental Service Provider in delivering on the SMPs. Acts as the conduit for advice from the Chief Environmental Scientist to the Environmental Service Provider Manages the Environmental Service Provider's implementation of the SMPs Liaises with the Environmental Service Provider on delivery of the SMPs Arranges all contractual matters, on behalf of Woodside, associated with the Environmental Service Provider's delivery of the SMPs.
Environmental S	Service Provi	der Roles
SMP Standby Contractor – SMP Duty Manager/Project Manager (SMP Liaison Officer)	Onshore	 Coordinates the delivery of the SMPs Provides costings, schedule and progress updates for delivery of SMPs Determines the structure of the Environmental Service Provider's team to necessitate delivery of the SMPs Verifies that HSE Plans, detailed sampling plans and other relevant deliverables are developed and implemented for delivery of the SMPs Directs field teams to deliver SMPs Arranges all contractual matters, on behalf of Environmental Service Provider, associated with the delivery of the SMPs to Woodside Manages sub-consultant delivery to Woodside Provides required personnel and equipment to deliver the SMPs.
SMP Field Teams	Offshore – Monitoring Locations	 Delivers the SMPs in the field consistent with the detailed sampling plans and HSE requirements, within time and budget. Early communication of time, budget, HSE risks associated with delivery of the SMPs to the Environmental Service Provider – Project Manager Provides start up, progress and termination updates to the Environmental Service Provider – Project Manager (will be led in-field by a party chief).

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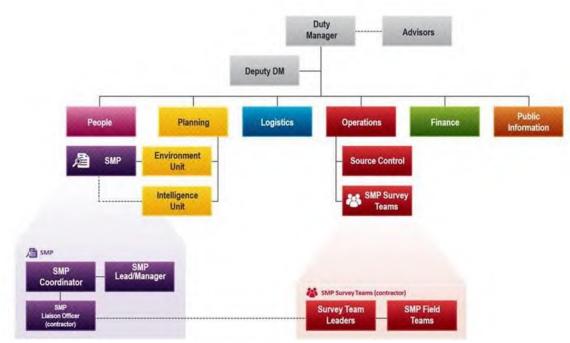


Figure C-1: Woodside Oil Spill Scientific Monitoring Program Delivery Team and linkage to Corporate Incident Management Team (CIMT) organisational structure.

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Table C-2: Oil Spill Environmental Monitoring: Scientific Monitoring Program - Objectives, Activation Triggers and Termination Criteria

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
Scientific monitoring program 1 (SM01) Assessment of Hydrocarbons in Marine Waters	 SM01 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine waters during and post-spill and response. The specific objectives of SM01 are as follows: Assess and document the extent, severity and persistence of hydrocarbon contamination with reference to observations made during surveillance activities and / or in-water measurements made during operational monitoring; and Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs. 	SM01 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors	 Operational monitoring data relating to observations and / or measurements of hydrocarbons on and in water have been compiled, analysed and reported; and The report provides details of the extent, severity and persistence of hydrocarbons which can be used for analysis of impacts recorded for sensitive receptors monitored under other SMPs. SMP monitoring of sensitive receptor sites: Concentrations of hydrocarbons in water samples are below NOPSEMA guidance note (2019⁷) concentrations of 1 g/m2 for floating, 10 ppb for entrained and dissolved; and Details of the extent, severity and persistence of hydrocarbons from concentrations recorded in water have been documented at sensitive receptor sites monitored under other SMPs.
Scientific monitoring program 2 (SM02) Assessment of the Presence, Quantity and Character of Hydrocarbons in Marine Sediments	 SM02 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine sediments following the spill and the response. The specific objectives of SM02 are as follows: Determine the extent, severity and persistence of hydrocarbons in marine sediments across selected sites where hydrocarbons were observed or recorded during operational monitoring; and Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs. 	 SM02 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows: Response activities have ceased; and Operational monitoring results made during the response phase indicate that shoreline, intertidal or sub-tidal sediments have been exposed to surface, entrained or dissolved hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation). 	 SM02 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of: Concentrations of hydrocarbons in sediment samples are below ANZECC/ ARMCANZ (2013⁸) sediment quality guideline values (SQGVs) for biological disturbance; and Details of the extent, severity and persistence of hydrocarbons from concentrations recorded in sediments have been documented.
Scientific monitoring program 3 (SM03) Assessment of Impacts and Recovery of Subtidal and Intertidal Benthos	 The objectives of SM03 are: Characterize the status of intertidal and subtidal benthic habitats and quantify any impacts to functional groups, abundance and density that may be a result of the spill; and Determine the impact of the hydrocarbon spill and subsequent recovery (including impacts associated with the implementation of response options). Categories of intertidal and subtidal habitats that may be monitored include: Coral reefs Seagrass Macro-algae Filter-feeders SM03 will be supported by sediment contamination records (SM02) and characteristics of the spill derived from OMPs. 	SM03 will be activated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows: • As part of a pre-emptive assessment of PBAs of receptor locations identified by time to hydrocarbon contact >10 days, to target receptors and sites where it is possible to acquire pre-hydrocarbon contact baseline; and • Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) for subtidal and intertidal benthic habitat.	 SM03 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of: Overall impacts to benthic habitats from hydrocarbon exposure have been quantified. Recovery of impacted benthic habitats has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 4 (SM04) Assessment of Impacts and Recovery of Mangroves / Saltmarsh	The objectives of SM04 are: Characterize the status of mangroves (and associated salt marsh habitat) at shorelines exposed/contacted by spilled hydrocarbons; Quantify any impacts to species (abundance and density) and mangrove/saltmarsh community structure; and Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options). SM03 will be supported by sediment sampling undertaken in SM02 and characteristics of the spill derived from OMPs.	SM04 will be activated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows: • As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; and	SM04 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of: Impacts to mangrove and saltmarsh habitat from hydrocarbon exposure have been quantified. Recovery of impacted mangrove/saltmarsh habitat has been evaluated.

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⁷ NOPSEMA (2019) Bulletin #1 – Oil spill modelling – April 2019, https://www.nopsema.gov.au/assets/Bulletins/A652993.pdf
⁸ Simpson SL, Batley GB and Chariton AA (2013). Revision of the ANZECC/ARMCANZ Sediment Quality Guidelines. CSIRO and Water Science Report 08/07. Land and Water, pp. 132.

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
		Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) for mangrove/saltmarsh habitat.	 Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 5 (SM05) Assessment of Impacts and Recovery of Seabird and Shorebird Populations	 Collate and quantify impacts to avian wildlife from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population level; and Undertake monitoring to quantify and assess impacts of hydrocarbon exposure to seabirds and shorebird populations at targeted breeding colonies / staging sites / important coastal wetlands where hydrocarbon contact was recorded. 	 SM05 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented as follows: As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; Operational monitoring predicts shoreline contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at important bird colonies / staging sites / important coastal wetland locations; or Records of dead, oiled or injured bird species made 	 SM05 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of: Impacts to seabird and shorebird populations from hydrocarbon exposure have been quantified. Recovery of impacted seabird and shorebird populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 6 (SM06) Assessment of Impacts and Recovery of Nesting Marine Turtle Populations	 The objectives of SM06 are to: To quantify impacts of hydrocarbon exposure or contact on marine turtle nesting populations (including impacts associated with the implementation of response options); Collate and quantify impacts to adult and hatchling marine turtles from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population levels (including impacts associated with the implementation of response options); .and Undertake monitoring to quantify and assess impacts of hydrocarbon exposure to nesting marine turtle populations at known rookeries (including impacts associated with the implementation of response options). 	during the hydrocarbon spill or response. SM06 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring has: • As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; • Predicted shoreline contact of hydrocarbons (at or above 0.5 g/m² surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at known marine turtle rookery locations; or • Records of dead, oiled or injured marine turtle species made during the hydrocarbon spill or response.	SM06 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of: Impacts to nesting marine turtle populations from hydrocarbon exposure have been quantified. Recovery of impacted nesting marine turtle populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 7 (SM07) Assessment of Impacts to Pinniped Colonies including Haul-out Site Populations	 The objectives of SM07 are to: Quantify impacts on pinniped colonies and haul-out sites as a result of hydrocarbon exposure/contact. Collate and quantify impacts to pinniped populations from results recorded during OM02 and OM05 (such as mortalities, oiling, rescue and release counts) and undertake a desk-based assessment to infer potential impacts at species population levels. 	 SM07 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring has: As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact >10 days; Identified shoreline contact of hydrocarbons ((at or above 0.5 g/m² surface, ≥5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m² for shoreline accumulation) at known pinniped colony or haul-out site(s) (i.e. most northern site is the Houtman Abrolhos Islands); or Records of dead, oiled or injured pinniped species made during the hydrocarbon spill or response. 	 SM07 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of: Impacts to pinniped populations from hydrocarbon exposure have been quantified. Recovery of pinniped populations has been evaluated. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 8 (SM08) Desk-Based Assessment of Impacts to Other Non-Avian Marine Megafauna	The objective of SM08 is to provide a desk-based assessment which collates the results of OM02 and OM05 where observations relate to the mortality, stranding or oiling of mobile marine megafauna species not addressed in SM06 or SM07, including: Cetaceans; Dugongs; Whale sharks and other shark and ray populations; Sea snakes; and Crocodiles.	SM08 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring reports records of dead, oiled or injured non-avian marine megafauna during the spill/ response phase.	 SM08 will be terminated when the results of the post-spill monitoring have quantified impacts to non-avian megafauna. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.

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Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
	The desk-based assessment will include population analysis to infer potential impacts to marine megafauna species populations.		
Scientific monitoring program 9 (SM09) Assessment of Impacts and Recovery of Marine Fish associated with SM03 habitats	 The objectives of SM09 are: Characterise the status of resident fish populations associated with habitats monitored in SM03 exposed/contacted by spilled hydrocarbons; Quantify any impacts to species (abundance, richness and density) and resident fish population structure (representative functional trophic groups); and Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options). 	SM09 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented with SMO3.	 SM09 will be undertaken and terminated concurrent with monitoring undertaken for SM03, as per the SMP termination criteria process Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.
Scientific monitoring program 10 (SM10) SM10 - Assessment of physiological impacts important fish and shellfish species (fish health and seafood quality/safety) and recovery	SM10 aims to assess any physiological impacts to important commercial fish and shellfish species (assessment of fish health) and if applicable, seafood quality/safety. Monitoring will be designed to sample key commercial fish and shellfish species and analyse tissues to identify fish health indicators and biomarkers, for example: • Liver Detoxification Enzymes (ethoxyresorufin-O-deethylase (EROD) activity) • Polyaromatic Hydrocarbon (PAH) Biliary Metabolites • Oxidative DNA Damage • Serum Sorbitol Dehydrogenase (SDH) activity • Other physiological parameters, such as condition factor (CF), liver somatic index (LSI), gonado-somatic index (GSI) and gonad histology, total weight, length, condition, parasites, egg development, testes development, abnormalities. Seafood tainting may be included (where appropriate) using applicable sensory tests to objectively assess targeted finfish and shellfish species for hydrocarbon contamination. Results will be used to make inferences on the health of commercial fisheries and the potential magnitude of impacts to fishing industries.	 SM10 will be initiated in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors and implemented if operational monitoring (OM01, OM02 and OM05) indicates the following: The hydrocarbon spill will or has intersected with active commercial fisheries or aquaculture activities. Commercially targeted finfish and/or shellfish mortality has been observed/recorded. Commercial fishing or aquaculture areas have been exposed to hydrocarbons (≥0.5 g/m² surface and ≥5 ppb for entrained/dissolved hydrocarbons); and Taste, odour or appearance of seafood presenting a potential human health risk is observed. 	 SM10 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The SMP termination criteria process will be followed and include consideration of: Physiological impacts to important commercial fish and shellfish species from hydrocarbon exposure have been quantified. Recovery of important commercial fish and shellfish species from hydrocarbon exposure has been evaluated. Impacts to seafood quality/safety (if applicable) have been assessed and information provided to the relevant persons/ organisations and regulators for the management of any impacted fisheries. Agreement with relevant persons/ organisations and regulators based on the nature and scale of the hydrocarbon spill impacts and/or that observed impacts can no longer be attributed to the spill.

Activation Triggers and Termination Criteria

Scientific monitoring program activation

The Woodside oil spill scientific monitoring team will be stood up immediately with the occurrence of a hydrocarbon spill (actual or suspected) Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors via the First Strike plan for the petroleum activity programme. The presence of any level of hydrocarbons in the marine environment triggers the activation of the oil spill scientific monitoring program (SMP). This is to ensure the full range of eventualities relating to the environmental, socioeconomic and health consequences of the spill are considered in the planning and execution of the SMP. The activation process also takes into consideration the management objectives. species recovery plans, conservation advices and conservations plans for any World Heritage Area (WHA), AMPs, State Marine Parks, other protected area designations (e.g., State nature reserves) and Matters of National Environmental Significance (including listed species under part 3 of the Environment Protection and Biodiversity Conservation (EPBC) Act) potentially exposed to hydrocarbons. With the first 24-48 hours of a spill event, such information will be sourced and evaluated as part of the SMP planning process guided by Appendix D (identified receptors vulnerable to hydrocarbon contact), the information presented in the Existing Environment section of the EP as well as other information sources such as the Woodside Baseline Environmental Studies Database.

The starting point for decision-making on which SMPs are activated, and the spatial extent of monitoring activities, will be based on the predictive modelling results (OM01) in the first 24-48 hours until more information is made available from other operational monitoring activities such as aerial surveillance and shoreline surveys. Pre-emptive Baseline Areas (WHA, AMPs and State Marine Parks encompassing key ecological and socio-economic values) are a key focus of the SMP activation decision-making process, particularly, in the early spill event/response phase. As the operational monitoring progresses and further situational awareness information becomes available, it will be possible to understand the nature and scale of the spill. The SMP activation and implementation decision-making will be revisited on a daily basis to account for the updates on spill information. One of the priority focus areas in the early phase of the incident will be to identify and execute pre-emptive SMP assessments at key receptor locations, as required. The SMP activation and implementation decision tree is presented in Figure C-2.

Scientific monitoring program termination

The basis of the termination process for the active SMPs (SMPs 1-10) will include quantification of impacts, evaluation of recovery for the receptor at risk and consultation with relevant authorities, persons and organisations. Termination of each SMP will not be considered until the results (as presented in annual SMP reports for the duration of each program) indicate that the target receptor has returned to pre-spill condition.

Once the SMP results indicate impacted receptor(s) have returned to pre-spill condition (as identified by Woodside) a termination decision-making process will be triggered and a number of steps will be undertaken as follows:

- Woodside will engage expert opinion on whether the receptor has returned to pre-spill
 condition (based on monitoring data). Subject Matter Expert (SMEs) will be engaged (via
 the Woodside SME scientific monitoring terms of reference) to review program outcomes,
 provide expert advice and recommendations for the duration of each SMP.
- Where expert opinion agrees that the receptor has returned to pre-spill condition, findings
 will then be presented to the relevant authorities, persons and organisations (as defined
 by the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulation 11A).
 Identification of relevant persons/ organisations, planning and engagement will be
 managed by Woodside's Reputation Functional Support Team (FST) and follow the

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stakeholder management FST guidelines. These guidelines outline the FST roles and responsibilities, competencies, communications and planning processes. An assessment of the merits of any objection to termination will be documented in the SMP final report.

- Woodside will decide on termination of SMP based on expert opinion and merits of any relevant persons/ organisations objections. The final report following termination will include monitoring results, expert opinion and consultation including merits of any objections.
- Termination of SMPs will also consider applicable management objectives, species recovery plans, conservation advices and conservations plans for any World Heritage Area (WHA), AMPs, State Marine Parks, other protected area designations (e.g., State nature reserves) and Matters of National Environmental Significance (including listed species under part 3 of the EPBC Act).

The SMP termination decision-making process will be applied to each active SMP and an iterative process of decision steps continued until each SMP has been terminated (refer to decision-tree diagram for SMP termination criteria, Figure C-3).

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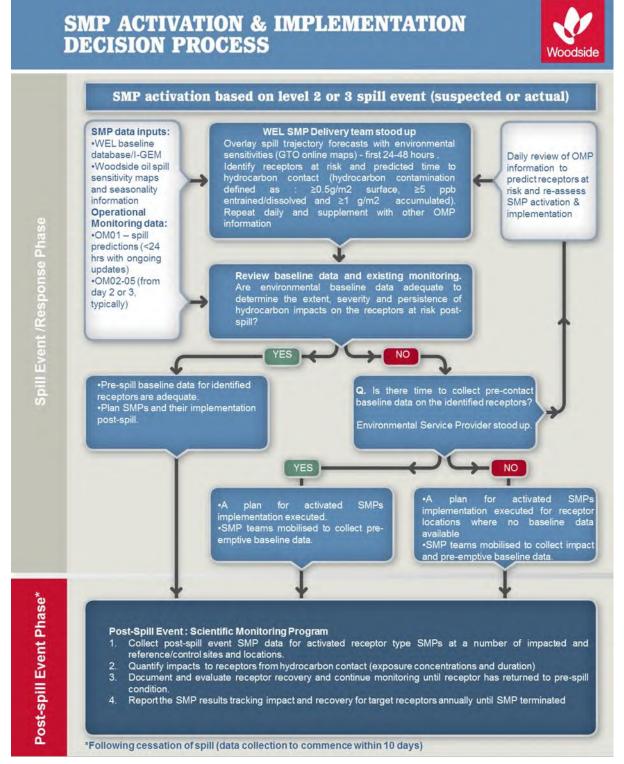


Figure C-2: Activation and Implementation Decision-tree for Oil Spill Environmental Monitoring

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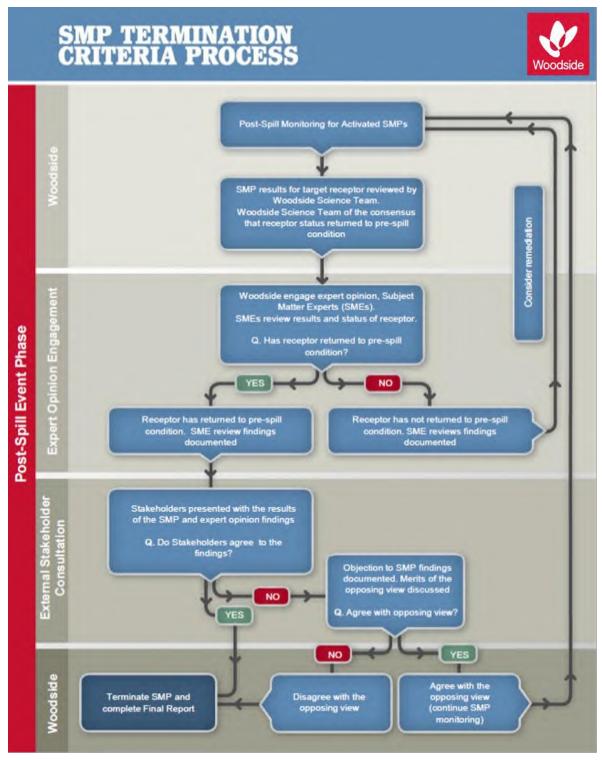


Figure C-3: Termination Criteria Decision-tree for Oil Spill Environmental Monitoring

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Receptors at Risk and Baseline Knowledge

In order to assess the baseline studies available and suitability for oil spill scientific monitoring, Woodside maintains knowledge of environmental baseline studies through the upkeep and use of its Environmental Knowledge Management System.

Woodside's Environmental Knowledge Management System is a centralised platform for scientific information on the existing environment, marine biodiversity, Woodside environmental studies, key environmental impact topics, key literature and web-based resources. The system comprises a number of data directories and an environmental baseline database, as well as folders within the 'Corporate Environment' server space. The environmental baseline database was set up to support Woodside's SMP preparedness and as a SMP resource in the event of an unplanned hydrocarbon spill. The environmental baseline database is subject to updates including annual reviews completed as part of the contracted SMP standby, SMP standby contract. This database is accessed pre-PAP to identify Pre-emptive Baseline Areas (PBAs) where hydrocarbon contact is predicted to occur <10 days.

In addition to Woodside's Environmental Knowledge Management System, it is acknowledged that many relevant baseline datasets are held by other organisations (e.g. other oil and gas operators, government agencies, state and federal research institutions and nongovernmental organisations). In order to understand the present status of environmental baseline studies a spatial environmental metadata database for Western Australia (Industry-Government Environmental Metadata, I-GEM) was established. IGEM is a collaboration comprising oil and gas operators (including Woodside), government and research agencies and other organisations. IGEM held data were integrated into the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA)⁹ in 2020. The Index of Marine Surveys for Assessments (IMSA) is an online portal to information about marine-based environmental surveys in Western Australia. IMSA is a project of the Department of Water and Environmental Regulation for the systematic capture and sharing of marine data created as part of an environmental impact assessment (EIA). In the event of an unplanned hydrocarbon release, Woodside intends to interrogate the information on baseline studies status as held by the various databases (e.g. Woodside Environmental Knowledge Management System, IMSA and other sources of existing baseline data) to identify Preemptive Baseline Areas (PBAs), i.e., receptors at risk where hydrocarbon contact is predicted to be >10 days, and baseline data can be collected before hydrocarbon contact.

Reporting

For the scientific monitoring program relevant regulators will be provided with:

- Annual reports summarising the SMPs deployed and active, data collection activities and available findings; and
- Final reports for each SMP summarising the quantitative assessment of environmental impacts and recovery of the receptor once returned to pre-spill condition and termination of the monitoring program.

The reporting requirements of the scientific monitoring program will be specific to the individual SMPs deployed and terms of responsibilities, report templates, schedule, Quality Assurance/Quality Control (QA/QC) and peer-review will be agreed with the contractors engaged to conduct the SMPs. Compliance and auditing mechanisms will be incorporated into the reporting terms.

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⁹ https://biocollect.ala.org.au/imsa#max%3D20%26sort%3DdateCreatedSort

ANNEX D: SCIENTIFIC MONITORING PROGRAM AND BASELINE STUDIES FOR THE PETROLEUM ACTIVITIES PROGRAM

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Table D-1: Oil Spill Environmental Monitoring – scientific monitoring program scope for the Petroleum Activities Program based on Spill EMBA for worse case credible spill CS-01 Note: the Commonwealth Marine Environment and Gascoyne AMP are the predicted sensitive receptors to be exposed to hydrocarbons.

														R	ecepto	or Are	as - F	otent	ial Im	pact a	and R	eferer	nce So	cientifi	ic Monit	oring 9	Sites (marke	d X)												
Receptors to be Monitored	Applicable SMP	(imberley AMP	Agro-Rowley Terrace AMP	Montebello AMP	Jampier AMP	Jarnarvon Canyon AMP	Vingaloo AMP	Sascoyne AMP	Shark Bay Open Ocean (including AMP)	Abrolhos AMP	Jurien AMP	wo Rocks AMP	erth Canyon AMP	Seographe AMP	south-west Corner AMP	Shmore Reef and AMP	Seringapatam Reef	Scott Reef (North and South)	Mermaid Reef and AMP	Serke Reef and State Marine Park	mperieuse Reef and State Marine Park	Rankin Bank	Siomar Shoals	Rowley Shoals (including Sate Maine Park)	antome Shoal	dele Island	acepede Islands	Montebello Islands (including State Marine Park)	owendal Islands (including State Nature Reserves)	3arrow Island (including State Nature Reserves, State Marine Park and Marine Management Area)	Muiron Islands (WHA, Marine Management Area)	Pilbara Islands - Southern Island Group (Serrurier, Thevenard and Bessieres Islands - State Nature	Specifically (Sand) Specifical Islands - Northern Island Group (Sand) Stand Passage Islands - State nature reserves)	Abrolhos Islands	Kimberley Coast	Jampier Peninsula	Vorthern Pilbara Shoreline	Vingaloo Coast (North/North West Cape, Middle Ind South) (WHA, and State Marine Park)	Shark Bay - Open Ocean Coast	Shark Bay (WHA, State Marine Park)	lgari Capes State Marine Park
Habitat																																									
Water Quality	SM01	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Marine Sediment Quality	SM02	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Coral Reef	SM03	Х		Х												Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х			Х	Х	Х	Х	Х	Х	Х	
Seagrass / Macro-Algae	SM03	Х									Х					Х	Х	Х									Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Deeper Water Filter Feeders	SM03	Х			Х	Х	Х	Х	Х	х	х	Х	Х	Х	Х	х	Х	Х	Х	х	х	х	х	х	Х						Х							Х			
Mangroves and Saltmarsh	SM04										\neg									一		\neg	\neg					Х						Х	Х	Х	Х	Х	\Box	х	
Species																																									
Sea Birds and Migratory Shorebirds (significant colonies / staging sites / coastal wetlands)	SM05	х	х	х	х		х	х	х	х	х	х	х	х	х	х	х	х	х	х	х					х	х	х	х	х	х	х	х	х	х	х	х	х	x	х	х
Marine Turtles (significant nesting beaches)	SM06	Х	х	х	Х		х	Х	х							х	х	х	х	х	х						х	Х	х	Х	Х	Х	Х	х	х	х	х	Х	х	х	
Pinnipeds (significant colonies / haul-out sites)	SM07									х	х	х			х																									\top	х
Cetaceans - Migratory Whales	SM08	Х	х	х	Х		Х	Х	Х	х	х	х	Х	Х	Х			х									Х	Х	х	Х	Х			Х	Х	Х		Х	П	х	Х
Oceanic and Coastal		х	х	х	х		х	х	х	х			х	х	х	х	х	х	х	х	х	х	х	х	Х		х	Х	х	Х	х	Х	х	х	х	х	х	Х	x	х	х
Cetaceans	SM08	Х				\vdash			Х		\dashv					X						_						Х	X	X	X	X	X		X	Х	X	×	X	X	
Dugongs	ONICO	X		х	Х			Х	Х	х	\dashv		\dashv			X	х	х	х	х	х	х	х	х	Х		х	Х	X	×	X	X	X	Х	X	Х	X	X	X	X	
Sea Snakes	SM08			X			х	Х	-^		\dashv						- `	X									- `	X	Х	×	X		<u> </u>	<u> </u>	Ĥ			×		-	_
Whale Sharks	SM08			\vdash									\dashv							_	_					\vdash															_
Other Shark and Ray Populations	SM08, SM09	Х	Х	Х	Х		Х	Х	Х	Х	Х			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Fish Assemblages	SM09	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Socio-economic										,											<u> </u>																				
Fisheries - Commercial	SM10		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х										Х	Х	Х	Х			Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	X	Х	Х
Fisheries - Traditional	SM10															Х	Х	Х				\perp					Х												\sqcup	Х	
Tourism (incl. recreational fishing)	SM10	Х		Х			Х	Х	Х		х			Х	Х	х	Х	Х	Х	х	х	х	х	х				Х	х	Х	х	Х	Х	Х	Х	Х	Х	Х	×	Х	х
Receptor areas ide	antifical or	Pro.o		o Bos	olino -	Areas	/basa	d on a	ritorio	of cur	food	nonton	4	/a.c. a.m.		d basele				10 da	101	felsore	Auct	rolion N	Marina D		-44	b b.		dana in	Albeita Aire		-1	to all							=

Receptor areas identified as Pre-emptive Baseline Areas (based on criteria of surface contact and/or entrained hydrocarbon contact ≤10 days (Offshore Australian Marine Parks contacted by hydrocarbons in this timeframe also noted)

Receptor areas identified as Pre-Emptive Baseline Areas in the response phase >10 days (based on criteria of surface contact and/or entrained hydrocarbon contact >10 days)

Receptor areas that may be identified as impact or reference sites in the event of major hydrocarbon release and would be identified as part of the SMP planning process

Table D-2 is not presented given the Commonwealth Marine Environment and Gascoyne AMP are the predicted sensitive receptors to be exposed to hydrocarbons no baseline studies for applicable SMPs are documented. SM01 water quality and hydrocarbon detection would be activated in the response phase of an unplanned spill event.

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ANNEX E: TACTICAL RESPONSE PLANS

TACTICAL RESPONSE PLANS
Exmouth
Mangrove Bay

Turquoise Bay

Yardie Creek

Muiron Islands

Jurabi to Lighthouse Beaches Exmouth

Ningaloo Reef - Refer to Mangrove/Turquoise bay and Yardie Creek

Exmouth Gulf

Shark Bay Area 1: Carnarvon to Wooramel

Shark Bay Area 2: Wooramel to Petite Point

Shark Bay Area 3: Petite Point to Dubaut Point

Shark Bay Area 4: Dubaut Point to Herald Bight

Shark Bay Area 5: Herald Bight to Eagle Bluff

Shark Bay Area 6: Eagle Bluff to Useless Loop

Shark Bay Area 7: Useless Loop to Cape Bellefin

Shark Bay Area 8: Cape Bellefin to Steep Point

Shark Bay Area 9: Western Shores of Edel Land

Shark Bay Area 10: Dirk Hartog Island

Shark Bay Area 11: Bernier and Dorre Islands

Abrohlos Islands: Pelseart Group Abrohlos Islands: Wallabi Group Abrohlos Islands: Easter Group

Dampier

Rankin Bank & Glomar Shoals

Barrow and Lowendal Islands

Pilbara Islands - Southern Island Group

Montebello Is - Stephenson Channel Nth

Montebello Is Champagne Bay & Chippendale channel

Montebello Is - Claret Bay

Montebello Is - Hermite/Delta Is Channel

Montebello Is - Hock Bay

Montebello Is - North & Kelvin Channel

Montebello Is - Sherry Lagoon Entrance

Withnell Bay

Holden Bay

King Bay

No Name Bay / No Name Beach

Enderby Is -Dampier

Rosemary Island - Dampier

Legendre Is - Dampier

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Karratha Gas Plant (KGP)

KGP to Whitnell Creek

KGP to Northern Shore

KGP Fire Pond & Estuary

KGP to No Name Creek

Broome

Sahul Shelf Submerged Banks and Shoals

Clerke Reef (Rowley Shoals)

Imperieuse Island (Rowley Shoals)

Mermaid Reef (Rowley Shoals)

Scott Reef

Oiled Wildlife Response

Exmouth

Dampier region

Shark Bay

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APPENDIX E. NOPSEMA REPORTING FORMS

NOPSEMA Recordable Environmental Incident monthly Reporting Form: https://www.nopsema.gov.au/assets/Forms/A198750.doc

Report of an accident, dangerous occurrence or environmental incident: https://www.nopsema.gov.au/assets/Forms/N-03000-FM0831-Report-of-an-Accident-Dangerous-Occurrence-or-Environmental-Incident-Rev-8-Jan-2015-MS-Word-2010.docx

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APPENDIX F. CONSULTATION

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Scarborough Drilling and Completions Environment Plan Table 1 and 2 and Appendix F

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Commonwealth and WA State Government Departments or Agencies – Marine

Australian Border Force (ABF)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to ABF on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the ABF with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed ABF advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 27 January 2023, Woodside emailed ABF with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.62).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has addressed maritime security-related issues in Section 6 of this EP based on previous offshore activities. No additional measures or controls are required.

Australian Fisheries Management Authority (AFMA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to AFMA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting

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comments or feedback.

Woodside has addressed and responded to AFMA over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed AFMA advising of the proposed activity (Appendix F, Reference 1.13) and provided a Consultation Information Sheet and Fisheries Map (Appendix F, Reference 1.15).
- On 5 July 2021, AFMA responded, noting that it cannot comment on individual proposals.
- On 3 February 2023, Woodside emailed AFMA with an update on the proposed activity (Appendix F, Reference 1.55) and provided an updated Consultation Information Sheet and Fisheries Map.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.63).
- On 22 May 2023, Woodside emailed AFMA requesting Commonwealth fishery licence holder contact details unrelated to this proposed activity.
- On 30 May 2023, AFMA responded to advise there will be a change in providing this information. In a further follow up email on the same day, AFMA advised there is a fee payable for this information and a need to sign a Deed of Confidentiality.
- On 17 July 2023, an agreement was reached with AFMA for Woodside to consult directly with Commonwealth fisheries as per contact details provided by AFMA under the new Deed of Confidentiality.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
 AFMA provided feedback stating: They were unable to comment on individual proposals but Woodside should consult with all fishers with entitlements within the proposed area. This could be done via relevant fishing industry associations and contacts were provided. AFMA advised they were changing the way they provided information and requested Woodside sign a Deed of Confidentiality. Whilst feedback has been received, there were no objections or claims. 	Woodside has addressed AFMA's feedback, including confirming that Woodside had provided information to relevant fishery licence holders as well as representative organisations on behalf of Commonwealth fishery licence holders who have entitlements to fish within the proposed area. Woodside has provided consultation information to AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders. An agreement was reached with AFMA for Woodside to consult directly with Commonwealth fisheries as per contact details provided by AFMA under the new Deed of Confidentiality. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. No additional measures or controls are required.

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may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	
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Australian Hydrographic Office (AHO) / Australian Hydrographic Service (AHS)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to AHO on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to AHO over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed AHO advising of the proposed activity (Appendix F, Reference 1.3) and provided a Consultation Information Sheet and shipping lanes map (Appendix F, Reference 1.4).
- On 27 January 2023, Woodside emailed AHO with an update on the proposed activity (Appendix F, Reference 1.39) and provided an updated Consultation Information Sheet and fisheries maps. Woodside confirmed it would make available a shipping lane map as soon as possible.
- On 30 January 2023, the AHO responded and acknowledged receipt of Woodside's consultation email.
- On 28 February 2023, Woodside emailed AHO and provided an updated shipping lane map (Appendix F, Reference 1.85).
- On 1 March 2023, the AHO responded and acknowledged receipt of Woodside's consultation email.
- On 9 March 2023, Woodside emailed AHO with a corrected version of the shipping lane map (Appendix F, Reference 1.85).
- On 10 March 2023, the AHO responded and acknowledged receipt of Woodside's consultation email.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	AHO has acknowledged receipt of Woodside's consultation emails. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where	Woodside will notify the AHO no less than four working weeks before operations commence, as referenced as a C 4.3 in this EP. No additional measures or controls are required.

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appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	
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Australian Maritime Safety Authority (AMSA) - Marine Safety

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to AMSA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to AMSA over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed AMSA advising of the proposed activity (Appendix F, Reference 1.5) and provided a Consultation Information Sheet and Shipping lanes map (Appendix F, Reference 1.4).
- On 5 July 2021, AMSA emailed Woodside and provided advice on obtaining vessel traffic plots, including digital datasets and maps. AMSA also requested that:
 - The AHO be contacted no less than four working weeks before operations commence for the promulgation of related notices to mariners.
 - AMSA's Joint Rescue Coordination Centre (JRCC) be notified at least 24-48 hours before operations commenced.
 - Updates were to be provided to the AHO and JRCC should there be changes to the activity.
 - Vessels were to exhibit appropriate lights and shapes to reflect the nature of operations and to comply with the International Rules of Preventing Collisions at Sea.
- On 22 July 2021, Woodside emailed AMSA confirming that Woodside would:
 - Notify the AHO no less than 4 weeks before operations commence
 - Notify AMSA's JRCC at least 24-48 hours before operations commence
 - Notify AMSA's JRCC when operations end
 - Provide updates to both the AHO and AMSA on any material changes to planned activities
 - Woodside also confirmed vessels will exhibit appropriate lights and shapes to reflect the nature of operations and the obligation to comply with the International Rules for Preventing Collisions at Sea.
- On 27 January 2023, Woodside emailed AMSA with an update on the proposed activity (Appendix F, Reference 1.39) and provided an updated Consultation Information Sheet and fisheries maps. On the same day, Woodside confirmed it would make available a shipping lane map as soon as possible.
- On 31 January 2023, AMSA emailed Woodside requesting:
 - Additional information relating to moorings and their potential impact on shipping traffic.
 - Woodside to confirm its current GIS data so that AMSA can map it and assess navigation safety.

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- Woodside to send its updated Shipping Lane figures.
- On 10 February 2023, AMSA emailed Woodside and reiterated its 31 January 2023 request for additional information.
- On 15 February 2023, AMSA emailed Woodside and reiterated its 31 January 2023 and 10 February 2023 request for additional information.
- On 16 February 2023, Woodside received a phone message from AMSA requesting digital data regarding the proposed activity.
- On 17 February 2023, Woodside had a phone conversation with AMSA to clarify the data required and was advised that AMSA would like the operational area polygons in shapefile format for the proposed activity.
- On 17 February 2023, Woodside emailed AMSA the operational area polygons in shapefile format for the proposed activity.
- On 21 February 2023, AMSA emailed Woodside:
 - Provided a vessel traffic plot showing AIS data and an updated vessel traffic plot for the Scarborough area of interest.
 - AMSA reiterated its 31 January 2023 request.
- On 28 February 2023, Woodside emailed AMSA:
 - Provided additional information relating to the mooring.
 - Provided an updated shipping lane map (Appendix F, Reference 1.85).
- On 3 March 2023 AMSA emailed Woodside:
 - Requested explanation on whether the floating production unit (FPU) would obstruct a charted shipping fairway and where the FPU would be located?
 - Requested clarification on the vessel traffic plots provided and how the Environment that May Be Affected (EMBA) areas will actually be affected by working vessels, support craft and associated activities.
 - AMSA commented that the EMBAs are quite large unique areas, so AMSA is curious about the extent of vessel traffic and activity within these areas and lines of traffic and charted shipping fairways.
- On 8 March 2023 Woodside emailed AMSA advising (Appendix F, Reference 1.87):
 - The location and depth of the Scarborough FPU and its composition
 - The environment that may be affected (EMBA) is the largest spatial extent where the PAP could potentially have an environmental consequence (direct or indirect impact).
 - The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this EP is determined by a highly unlikely release of marine diesel to the environment as a result of vessel collision.
 - The EMBA does not represent the extent of predicted impact of the highly unlikely marine diesel release. Rather, the EMBA represents the merged area of many possible paths a highly unlikely hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the entire EMBA will not be affected and the specific and minimal part of the EMBA that is affected will only be known at the time of the release.
 - Woodside also provided an updated version of the shipping lane map noting there was an error on the previous version (Appendix F, Reference 1.85).

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Summary of Feedback, Objection or Claim **Woodside Energy's Assessment of Merits of Environment Plan Controls** Feedback, Objection or Claim and its Response AMSA provided feedback relating to: Woodside addressed AMSA's requests and confirmed Woodside will notify AMSA's JRCC at least 24it would: 48 hours before operations commence, as referenced · Advice on obtaining vessel traffic plots, including as C 4.5 in this EP. digital datasets and maps Notify the AHO no less than 4 weeks before Woodside will notify AHO no less than four working operations commence Notification requirements - the AHO to be contacted weeks before operations commence, as referenced as no less than four working weeks before operations Notify AMSA's JRCC at least 24-48 hours before a C 4.3 in this EP. commenced operations commence Woodside considers the measures and controls in the AMSA's Joint Rescue Coordination Centre (JRCC) Notify AMSA's JRCC when operations end EP are appropriate. to be notified at least 24-48 hours before operations Provide updates to both the AHO and AMSA on commenced any material changes to planned activities. The AHO and JRCC to be updated should there be Woodside also confirmed vessels would exhibit changes to the activity appropriate lights and shapes to reflect the nature Vessel light and shapes (navigational aid) of operations and the obligation to comply with the requirements - vessels were to exhibit appropriate International Rules for Preventing Collisions at lights and shapes to reflect the nature of Sea. operations and to comply with the International Woodside provided the additional information Rules of Preventing Collisions at Sea. requested. AMSA requested further information relating to: Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback Additional information relating to moorings and their potential impact on shipping traffic. may be received as part of ongoing consultation. Should feedback be received after the EP has been Woodside to confirm its current GIS data so that accepted, it will be assessed and, where appropriate. AMSA can map it and assess navigation safety. Woodside will apply its Management of Change and Woodside to send its updated Shipping Lane Revision process (see Section 7). figures. The Floating Production Unit (FPU) and vessel collisions.

Australian Maritime Safety Authority (AMSA) - Marine Pollution

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to AMSA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has provided the AMSA with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed AMSA advising of the proposed activity (Appendix F, Reference 1.5) and provided a Consultation Information Sheet and shipping lanes map (Appendix F, Reference 1.4).
- On 13 July 2021, Woodside emailed AMSA and noted it had sent the previous consultation to the wrong email address. Woodside asked if AMSA needed additional time
 to review.
- On 6 October 2021, Woodside emailed AMSA and provided a copy of the Oil Pollution First Strike Plan.
- On 27 January 2023, Woodside emailed AMSA with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.62).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has addressed oil spill preparedness and response strategy planning in Appendix D. No additional measures or controls are required.

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Department of Climate Change, Energy, the Environment and Water Agriculture (DCCEEW) / Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries / Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel) (formerly DAWE)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DCCEEW on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DCCEEW over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DCCEEW advising of the proposed activity (Appendix F, Reference 1.17) and provided a Consultation Information Sheet and a map of relevant fisheries (Appendix F, Reference 1.15).
- On 17 December 2021, Woodside emailed DCCEEW:
 - Woodside sought clarification around the Pygmy Blue Whale CMP, the Department's Guideline and NOPSEMA's FAQ in relation to the definition of, and Woodside's interpretation of BIAs.
 - Woodside requested clarification of its understanding of the documents on the DCCEEW website, (Blue Whale CMP) which state that "BIAs are not defined under the EPBC Act, but they are areas that are particularly important for the conservation of protected species and where aggregations of individuals display biologically important behaviour such as calving, foraging, resting or migration. BIAs have been identified using expert scientific knowledge about species' distribution abundance and behaviour".
 - Woodside clarified that consequently, distribution in itself is not a BIA (for blue whales); whereas areas where biologically important behaviour such as calving, foraging, resting or migration clearly are BIAs.
- On 20 December 2021, DCCEEW emailed Woodside:
 - DCCEEW advised that the definition provided is the agreed working definition of BIAs and this interpretation is correct, BIAs are not defined or described under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). They are however a geospatial tool used to inform regulatory decision-making given the biologically critical behaviours that they represent.
 - DCCEEW advised that the assumption is correct, that the entire distribution of the blue whale is not considered a BIA. The 'distribution BIA' for the blue whale, as designated in the National Conservation Values Atlas (NCVA) does not constitute a BIA (that represents an area where biologically important behaviour is displayed, such as foraging and migration for the blue whale). DAWE believe the distribution BIA was included in the NCVA following development of the Conservation Management Plan for the Blue Whale (CMP) to flag the importance of their range.
 - DCCEEW noted that the Blue Whale CMP states (on page 28) "it is not currently possible to define habitat critical to the survival of blue whales. Due to DCCEEW's limited knowledge about the distribution and abundance of these subspecies, little is currently known about the location and characteristics of these habitats. To

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- date, the best information relates to biologically important areas where foraging occurs. These foraging areas can be considered important to the survival of blue whales as they seasonally support highly productive ecosystem processes on which significant aggregations of whales rely."
- DCCEEW advised that the Blue Whale CMP provides an indicative map of 'Pygmy blue whale distribution around Australia' which shows annual high use, known
 and possible foraging areas. The Blue Whale CMP also provides an indicative map of known and likely migration routes. DCCEEW advised that these maps may
 be of use.
- On 30 March 2022, Woodside emailed DCCEEW to ensure DCCEEW was aware NOPSEMA had requested correspondence between DCCEEW and
 - Woodside which must be complied with regarding blue whale distribution and BIAs. Woodside advised details of the correspondence would be included
 - for NOPSEMA's assessment of this EP.
- On 30 March 2022, DCCEEW thanked Woodside for the advice and that DCCEEW had been in contact with NOPSEMA and were aware of this requirement.
- On 3 February 2023, Woodside emailed DCCEEW Fisheries with an update on the proposed activity (Appendix F, Reference 1.40) and provided an updated Consultation Information Sheet and fisheries maps.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.77).

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Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
In the course of preparing this and other Woodside EPs, DCCEEW has provided clarification around the Blue Whale CMP, the Department's Guideline and NOPSEMA's FAQ in relation to the definition of, and Woodside's interpretation of BIAs. Whilst feedback has been received, there were no objections or claims.	Woodside notes DCCEEW clarification around the Blue Whale CMP, the Department's Guideline and NOPSEMA's FAQ in relation to the definition of BIAs. Woodside's interpretation of the Blue Whale CMP advice has been applied in the EP, see Section 4. Woodside has provided consultation information to AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	The Environment Plan demonstrates that the proposed activities are outside the boundaries of a proclaimed Commonwealth Marine Park and identifies that there are no credible impacts to the values of any Commonwealth Marine Parks as a result of planned activities (Section 4). While impacts to Commonwealth Marine Parks are possible in the event of an unplanned hydrocarbon spill, Woodside considers it adopts appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of an incident, as demonstrated in Section 6.8.2 and Section 6.8.3. The Environment Plan demonstrates that there are no known underwater heritage sites or shipwrecks within the Petroleum Activities Area and identifies that there are no credible impacts as a result of planned activities (Section 4). While impacts to underwater heritage sites or shipwrecks are possible in the event of an unplanned hydrocarbon spill, Woodside considers it adopts appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of an incident, as demonstrated in Section 6.8.2 and Section 6.8.3. Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP.

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in Section 6 of this EP based on previous offshore activities.
No additional measures or controls are required.

Department of Defence (DoD)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DoD on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 19 October 2022 advising of the proposed activities and requesting comments
 or feedback.
- Woodside has addressed and responded to DoD over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DoD advising of the proposed activity (Appendix F, Reference 1.6) and provided a Consultation Information Sheet and defence map (Appendix F, Reference 1.7).
- On 2 August 2021, DoD emailed Woodside and provided feedback regarding unexploded ordnance risks and DoD's notification requirements prior to activity commencement.
- On 4 August 2021, Woodside emailed DoD requesting shape files and further detail about UXO.
- On 4 August 2021, DOD emailed Woodside a map with details.
- On 27 January 2023, Woodside emailed DoD advising of the proposed activity (Appendix F, Reference 1.41) and provided a Consultation Information Sheet.
- On 20 February 2023, DoD emailed Woodside and reiterated previous advice provided. In an additional email on the same day DoD also provided Woodside with a figure outlining its restricted airspace and Defence Training Areas off the WA Coast.
- On 13 March 2023, Woodside emailed DoD thanking them for their feedback and advised that:
 - In line with Woodside's previous response to the Department of Defence's feedback in relation to the proposed activities, Woodside re-confirms that it notes the Department's advice on the location of the Operational Area and the presence of the NWXA and restricted airspace.
 - Woodside noted the advice with respect to the location, identification, removal, or damage to equipment from unexploded ordinances (UXOs). Woodside provided confirmation that:
 - Woodside will notify the Department of Defence at least five weeks prior to the commencement of activities.
 - Woodside notes the requirement and contact details provided by the Department of Defence to engage with Airservices Australia if the restricted airspace is activated.
 Woodside will confirm restricted air space status with the Department of Defence as part of its commencement of activity notification.
 - Australian Hydrographic Office (AHO) has already been engaged for this activity and is included in our activity notification protocols. At its request, AHO will be

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notified four weeks prior to the start of activities. Woodside also provided an updated defence zone map.		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
DoD has provided feedback relating to: The location of the activity in proximity to the NWXA and the potential presence of UXO. Notification requirements DoD has provided advice relating to: Details of its restricted airspace and Defence Training Areas off the WA Coast Whilst feedback has been received, there were no objections or claims.	Woodside has reviewed the proposed activity and the location of the NWXA and UXOs to understand the potential for UXOs to be within the Operational Area. The Learmonth Air Weapons Range (AWR) practice area is approximately 76 km south of the operational area and the location of any UXOs (known to occur) are near Bessieres Island which is located 165 km south of the Operational Area. A UXO survey may be carried out as part of pre-Trunkline installation work where there is deemed to be a credible risk. Woodside acknowledges the potential presence of UXOs and has considered this in its risk assessment planning. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has addressed DoDs expectations on notifications – Defence, restricted air space and AHO as in Control 4.8 and 4.3 in Section 6.7.4. AHO have been engaged for the activity and are included in Woodside's activity notification protocols. AHO will be notified four weeks prior to the start of activities. Woodside considers the measures and controls in the EP are appropriate. No additional measures or controls are required.

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Department of Primary Industries and Regional Development (DPIRD)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DPIRD on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DPIRD over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DPIRD advising of the proposed activity (Appendix F, Reference 1.16) and provided a Consultation Information Sheet and Fisheries Map (Appendix F, Reference 1.15).
- On 3 February 2023, Woodside emailed DPIRD with an update on the proposed activity (Appendix F, Reference 1.51) and provided an updated Consultation Information Sheet and fisheries maps.
- On 24 February 2023, Woodside emailed DPIRD on other Scarborough EPs and asked DPIRD whether it also had feedback on this EP.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
DPIRD has provided feedback that the activity is proposed for waters unlikely to influence fishing activities and it has no further comments at this time. Whilst feedback has been received, there were no objections or claims.	Woodside confirmed with DPIRD it has consulted state commercial fishery licence holders and recreational fishery licence holders that are active within the EMBA for the proposed activity. (See this Consultation Report with Commonwealth and State Fisheries.) Woodside has provided consultation information to DPIRD, WAFIC, and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. No additional measures or controls are required.

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Scarborough Drilling and Completions Environment Plan		

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Department of Transport (DoT)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DoT on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DoT over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DoT advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 16 July 2021, DoT responded, advising that if there is a risk of a spill impacting State water from the proposed activities, DoT should be consulted.
- On 6 October 2021, Woodside emailed DoT and provided a copy of the Oil Pollution First Strike Plan.
- On 12 October 2021, DoT responded, noting that as there is a low risk to State waters, a full review has not been deemed necessary at this time. DoT requested a copy
 of the accepted version of the OPEP once finalised.
- On 12 October 2021, Woodside responded, thanking DoT for the feedback and confirmed Woodside will submit a copy of the OPEP to DoT once accepted.
- On 27 January 2023, Woodside emailed DoT with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 7 February 2023, DoT responded restating its advice from 18 May 2021.
- On 22 February 2023, Woodside responded confirming that if there is a risk of a spill impacting State waters, the Department of Transport will be consulted.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
 DoT has provided feedback relating to: Consultation requirements in the event of a spill impacting State waters from any of the proposed activities. The draft Oil Pollution First Strike Plan and a request for a final accepted version of the plan when available. 	Woodside has addressed DoT's feedback regarding the Oil Pollution First Strike Plan and incorporated referenced changes based on feedback. Woodside will send DoT a copy of the First Strike Plan once accepted. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been	Woodside will consult DoT if there is a spill impacting State waters from the proposed activity, as referenced in the OSPRMA (Appendix D). Woodside will provide DoT with a copy of the accepted Oil Pollution First Strike Plan (Appendix H), as referenced in the OSPRMA (Appendix D). No additional measures or controls are required.

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Whilst feedback has been received, there were no objections or claims.	accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and	
	Revision process (see Section 7).	

Commonwealth and WA State Government Departments or Agencies - Environment

Director of National Parks (DNP)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DNP on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DNP over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DNP advising of the proposed activity (Appendix F, Reference 1.8) and provided a Consultation Information Sheet.
- On 11 August 2021, DNP responded and noted that there are no authorisation requirements from the DNP. The DNP confirmed it does not require further notification of progress made in relation to the activity unless details regarding the activity change and result in an overlap with new impact to a marine park, or for emergency response.
- On 27 January 2023, Woodside emailed DNP with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023 Woodside sent a follow up email (Appendix F, Reference 1.62).
- On 24 February 2023, DNP emailed Woodside:
 - DNP noted they have no further comment or objections and claims on the proposed activity. DNP noted that comments on the proposed activity were previously provided to Woodside on 5 July 2021.
 - DNP requested clarification on the Operational Area (OA).
 - The Director of National Parks considers the OA to encompass operational activities such as line turns / repositioning, equipment maintenance, deployment and recovery, crew change and resupply.
 - These are offshore petroleum activities and Commonwealth environment regulatory matters and, as such, should be included in the EP so relevant risks are assessed and effective mitigation applied.
- On 8 March 2023, Woodside emailed DNP (Appendix F, Reference 1.86):
 - Woodside acknowledged the comments already provided by DNP previously on each of the relevant EPs and that DNP has no further comment or objections and claims.

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-	Woodside provided clarification that the Operational Area includes both the Active Source Area and a surrounding buffer for the purpose of vessel line turns and
	other vessel manaeuvres

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Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
DNP provided feedback about the Operational Area and that it has no comment on the proposed activity. Whilst feedback has been received, there were no objections or claims.	Woodside has addressed DNP's feedback and provided additional information on the operational area. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	The Environment Plan demonstrates that the proposed activities are outside the boundaries of a proclaimed Commonwealth Marine Park and identifies that there are no credible impacts to the values of any Commonwealth Marine Parks as a result of planned activities (Section 4). While impacts to Commonwealth Marine Parks are possible in the event of an unplanned hydrocarbon spill, Woodside considers it adopts appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of an incident, as demonstrated in Section 6.8.2 and Section 6.8.3. Woodside will ensure DNP is made aware of any incidences within a marine park for the activity, as per the commitment in the Oil Pollution First Strike Plan (Appendix H; Table 1-1).

Department of Biodiversity, Conservation and Attractions (DBCA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DBCA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DBCA over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DBCA advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 20 July 2021, DBCA responded, noting that DBCA has no comments on the proposed activities. DBCA noted that Woodside should continue to provide future notifications to the department.

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- On 27 January 2023, Woodside emailed DBCA with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 8 February 2023, DBCA emailed Woodside:
 - DBCA advised that based on the documentation provided for review and other readily available information, DBCA has no comments in relation to its responsibilities under the Conservation and Land Management Act 1984 and Biodiversity Conservation Act 2016.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
DBCA provided feedback that it has no comment on the proposed activity. Whilst feedback has been received, there were no objections or claims.	Woodside acknowledges that DBCA had no comment on the proposed activities. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	The Environment Plan demonstrates that the proposed activities are outside the boundaries of a proclaimed State Marine Park and identifies that there are no credible impacts to the values of any State Marine Parks as a result of planned activities (Section 4.9). While impacts to State Marine Parks are not expected in the event of an unplanned hydrocarbon spill, Woodside considers it adopts appropriate controls to prevent a hydrocarbon spill and controls to respond in the highly unlikely event of a hydrocarbon spill, as demonstrated in Section 6.7.2 and Section 6.7.3. No additional measures or controls are required.

Commonwealth and State Government Departments or Agencies - Industry

Department of Industry, Science and Resources (DISR) (formerly DISER)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DISR on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DISR with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

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- On 2 July 2021, Woodside emailed DISR advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 27 January 2023, Woodside emailed DISR with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023 Woodside sent a follow up email (Appendix, Reference 1.62).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Department of Mines, Industry Regulation and Safety (DMIRS)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to DMIRS on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to DMIRS over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed DMIRS advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 7 July 2021, DMIRS responded to Woodside and noted that the email had been reviewed and no further information was required. DMIRS requested
 commencement and cessation notification for the activities.
- On 27 January 2023, Woodside emailed DMIRS with an update on the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.62).

Summary of Feedback, Objection or Claim Woodside Energy's Assessm of Feedback, Objection or Claim Response	
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DMIRS noted that it did not require further information at this stage and requested pre-start notifications confirming the start date of the proposed activity and a cessation notification upon completion of the activity. Woodside sent DMIRS updates on the proposed activity and follow up emails. Woodside engages in ongoing consultation througho the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside considers the measures and controls in the
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Commonwealth Commercial fisheries and representative bodies

Western Deepwater Trawl Fishery

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Western Deepwater Trawl Licence Holders on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Deepwater Trawl Licence Holders with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed Western Deepwater Trawl Licence Holders advising of the proposed activity (Appendix F, Reference 1.11) and provided a Consultation Information Sheet and Fisheries Map (Appendix F, Reference 1.15).
- On 3 February 2023, Woodside emailed licence holders with an update on the proposed activity (Appendix F, Reference 1.49) and provided an updated Consultation Information Sheet and fisheries map.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.71).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders.	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP.

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Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP.
	No additional measures or controls are required.

North West Slope and Trawl Fishery

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to North West Slope and Trawl Fishery Licence Holders on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided North West Slope and Trawl Fishery Licence Holders with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside emailed North West Slope and Trawl Fishery Licence Holders on the proposed activity (Appendix F, Reference 1.49) and provided a
 Consultation Information Sheet and fisheries map.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.71).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of

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appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. No additional measures or controls are required.
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Commonwealth Fisheries Association (CFA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to CFA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to CFA over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed CFA advising of the proposed activity (Appendix F, Reference 1.12) and provided a Consultation Information Sheet and fisheries map (Appendix F, Reference 1.15).
- On 3 February 2023, Woodside emailed CFA on the proposed activity (Appendix F, Reference 1.49) and provided an updated Consultation Information Sheet and fisheries map.
- On 22 February 2023 Woodside sent a follow up email (Appendix F, Reference 1.71).
- On 22 February 2023, CFA emailed Woodside:
 - CFA advised it is not resourced to give feedback on Woodside's EP.
 - CFA requested to direct enquiries to the associations that represent the directly affected fisheries/fishers.
 - CFA noted that the increasing volume of requests for consultation on EP from oil and gas and more recently windfarm proposals are beyond the capacity of most associations. For this reason, please be prepared to engage those associations on a fee for service basis.
- On 15 March 2023. Woodside emailed CFA:
 - Woodside confirmed it has provided consultation information directly to fishery licence holders that it has assessed as 'relevant persons' for the proposed EP, as well as to their fishery representative bodies.
 - As per Woodside's ongoing consultation approach, feedback continues to be assessed and responded to, as required, through the life of an EP.

Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Response	

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CFA provided feedback that it is not resourced to give feedback on Woodside's Environmental Plan and that it should consult with fishery license holders directly.

Whilst feedback has been received, there were no objections or claims.

Woodside has addressed the CFA's feedback, including confirming it has provided consultation information directly to licence holders it has assessed as 'relevant persons' for the proposed EP as well as their fishery representative bodies.

Woodside has provided consultation information to AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders.

Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).

Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP.

Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP.

No additional measures or controls are required.

State Commercial fisheries and representative bodies

Marine Aquarium Managed Fishery

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Marine Aquarium Managed Fishery on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the Marine Aquarium Managed Fishery with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside sent a letter to the Marine Aquarium Managed Fishery on the proposed activity (Appendix F, Reference 1.50) and provided a Consultation Information Sheet and fisheries map.
- On 22 February 2023, Woodside sent a follow up letter (Appendix F, Reference 1.68).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its	Environment Plan Controls

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	Response	
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to DPIRD, WAFIC, and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. No additional measures or controls are required.

Mackerel Managed Fishery (Area 2 and 3)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Mackerel Managed Fishery (Area 2 and 3) on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the Mackerel Managed Fishery with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside sent a letter to the Mackerel Managed Fishery (Area 2 and 3) on the proposed activity (Appendix F, Reference 1.50) and provided a Consultation Information Sheet and fisheries map.
- On 22 February 2023 Woodside sent a follow up letter (Appendix F, Reference 1.68).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to DPIRD, WAFIC, and individual relevant licence holders.	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP.

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Woodside engages in ongoir the life of an EP. Should feed EP has been accepted, it wil appropriate, Woodside will a Change and Revision proces	be assessed and, where oply its Management of DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days
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West Coast Deep Sea Crustacean Managed Fishery

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to West Coast Deep Sea Crustacean Managed Fishery on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the West Coast Deep Sea Crustacean Managed Fishery with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside sent a letter to the West Coast Deep Sea Crustacean Managed Fishery on the proposed activity (Appendix F, Reference 1.50) and provided a Consultation Information Sheet and fisheries map.
- On 22 February 2023, Woodside sent a follow up letter (Appendix F, Reference 1.68).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to DPIRD, WAFIC, and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of

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activities, as per Table 7-5 and Control 4.4 in Sectio 6.7.4 of this EP.	n
No additional measures or controls are required.	

Pilbara Line Fishery

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Pilbara Line Fishery on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Pilbara Line Fishery with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside emailed to the Pilbara Line Fishery on the proposed activity (Appendix F, Reference 1.56) and provided a Consultation Information Sheet and fisheries map.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.67).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to DPIRD, WAFIC, and individual relevant licence holders. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. No additional measures or controls are required.

Western Australian Fishing Industry Council (WAFIC)

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to WAFIC on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to WAFIC over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed WAFIC advising of the proposed activity (Appendix F, Reference 1.14) and provided a Consultation Information Sheet and fisheries map (Appendix F, Reference 1.15).
- On 2 August 2021, WAFIC responded. WAFIC asked for clarification of how cautionary / operational zones are determined. WAFIC also asked for confirmation that Woodside has considered data, communications, support, process and commitments regarding unplanned activities. WAFIC also confirmed that a no fishing from support / commercial vessels policy should in included in the EP.
- On 10 September 2021, Woodside responded to WAFIC's queries, providing information on how operational zones are determined, and Woodside's consideration of data, communications, support, process and commitments regarding unplanned activities. Woodside also confirmed that no recreational fishing from vessels will be included as a commitment in the EP.
- On 19 October 2021, WAFIC responded, thanking Woodside for the responses provided and noted that WAFIC has no additional comments at this stage.
- On 3 February 2023, Woodside emailed WAFIC on the proposed activity (Appendix F, Reference 1.52) and provided an updated Consultation Information Sheet and fisheries map.
- On 22 February 2023 Woodside sent a follow up email (Appendix F, Reference 1.64).
- On 5 May 2023, Woodside had a phone call with WAFIC to follow up on a number of EPs, including the activities proposed under this EP, and to request any further feedback. Woodside committed to providing WAFIC with a consolidated email outlining all the EPs Woodside is currently consulting WAFIC on for ease of feedback.
- On 5 May 2023, Woodside sent an email to WAFIC providing the status of feedback on a number of EPs, including the activities proposed under this EP. Woodside advised it would soon be submitting the EP for assessment and requested any further feedback.
- On 19 May 2023, Woodside had a phone call with WAFIC to follow up on a number of EPs, including the activities proposed under this EP and to request any feedback.
- On 24 May 2023, WAFIC emailed Woodside to ask whether Woodside was planning to develop and implement a compensation framework Fishers' engagement.
 - WAFIC also suggested a different consulting approach with WAFIC and commercial fishers may need to be adopted as WAFIC had limited resources and other oil
 and gas proponents utilising WAFIC's fee-for-service model for EPs would be prioritised.
- On 27 June 2023, Woodside responded to WAFIC noting:
 - The Operational Area for the proposed activity was not classified as an area of high commercial fishing activity.
 - Commercial fishing vessels would not be excluded from the entire Operational Area for the total duration of the proposed activities, which will occur in multiple campaigns.

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An interactive map showing the location of the proposed activities would be available on the Woodside website and would be updated throughout the proposed activities.

Woodside further stated it:

- Recognised rights of marine users and had taken steps to mitigate potential operational impacts on other marine users, including commercial fishing, shipping, and defence and petroleum activities and that it was required to reduce impacts to ALARP as set out in this EP.
- Would consider claims from commercial fishing licence holders where there is economic loss; damage to fishing equipment, and demonstratable loss of catch but would not reimburse stakeholders for time spent attending an activity planning meeting.
- Welcomed the opportunity to meet with WAFIC to provide an overview of current and upcoming EPs and would email proposed dates and details. Woodside noted WAFIC had previously provided feedback for a number of other EPs and asked to be advised of any further feedback.
- On 25 July 2023, WAFIC's CEO sent a letter to Woodside's CEO to register significant frustration with regard to Woodside pursuing detailed responses to EPs or Decommissioning Proposals. WAFIC noted:
 - Since start of 2023, it had received more than 60 emails seeking feedback for activities proposed by Woodside;
 - Each email placed significant workload pressures on WAFIC, an organisation without sufficient resources to meet the deadlines required;
 - It had a number of other oil and gas titleholders operating in WA waters seeking similar feedback for their projects;
 - WAFIC requested Woodside to review its current consultation methodology for engagement with WAFIC.
- On 16 August 2023, Woodside emailed WAFIC and confirmed a meeting for 28 August 2023. Woodside also provided an outline of existing EP consultation and
 upcoming in the coming weeks which were not relevant to this EP.
- On 25 August 2023, Woodside's Executive Vice President replied to the letter from WAFIC CEO and noted:
 - Woodside's consultation is designed to ensure that relevant persons are identified and given sufficient information and a reasonable period to make an informed assessment of the possible consequences of the proposed activity
 - Woodside is keen to meet with WAFIC and to ensure Woodside's consultation with WAFIC and the commercial fishing sector achieves this outcome.
 - Woodside thanked WAFIC for sharing concerns and appreciated the opportunity to discuss these matters further and will be in touch to organise a suitable meeting date.
- On 28 August 2023, Woodside met with WAFIC to discuss consultation on Environment Plans:
 - WAFIC noted the high level of consultation currently being experienced and resourcing requirements. It noted it needed to prioritise consultation and had provided guidance to offshore proponents.
 - Woodside discussed relevant persons consultation and acknowledged the high level of consultation to meet regulatory requirements and case law.
 - WAFIC noted the importance of genuine consultation and building a relationship with the commercial fishing sector.
 - Woodside sought to understand the most appropriate way to consult the commercial fishery sector.
 - WAFIC and Woodside agreed a more strategic approach to consultation was required, noting the WAFIC fee for service model.
 - Woodside recognised the need for WAFIC to be appropriately resourced to consider consultation materials.

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- It was noted it is challenging to make assumptions about certain offshore activities, for example considering water depth or distance from shore, to reduce consultation fatigue.
- Pipeline installation, seismic and decommissioning are activities of the most interest to the commercial fishing sector.
- WAFIC noted consultation at the Offshore Project Proposal stage was effective in understanding projects and upcoming work scopes.
- Woodside and WAFIC agreed to identify a more strategic and tailored model to consult the commercial fishery sector.
- Woodside gave a presentation on Environment Plan activities, consultation requirements, the environment that may be affected, and consultation on another EP.
- On 1 September 2023, Woodside phoned WAFIC to discuss the consultation approach and fee-for-service for other Woodside EPs.
 - WAFIC confirmed as per its guideline, consultation should occur with licence holders in the operational area and agreed to distribute consultation materials under fee
 for service for Woodside EPs.
 - WAFIC confirmed it had sufficient existing information to consult with licence holders.
 - Woodside and WAFIC reiterated plans to develop a longer-term consultation model for future EPs.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
WAFIC asked for further clarifications cautionary / operational zones and confirmation that Woodside has considered data, communications, support, process and commitments regarding unplanned activities. WAFIC provided the expectation that there will be no fishing from support / commercial vessels. Expectations around a different consulting model suggesting priority would be given to Titleholders who embrace fee-for-service. WAFIC and Woodside are working towards a more strategic approach and tailored model to consult the commercial fishery sector	Woodside has addressed WAFIC's feedback and confirmed that of data, communications, support, process and commitments regarding unplanned activities has been considered. Woodside has addressed WAFICs feedback on fishing from support / commercial vessels in Section 7.6.2 of the EP. Woodside has provided consultation information to DPIRD, WAFIC and individual relevant licence holders. Woodside advised WAFIC it would welcome the opportunity to meet and provide an overview of its EPs. Woodside agreed to identify a more strategic and tailored model to consult the commercial fishery sector on environment plans. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate,	Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP. Woodside will provide notifications to AFMA, CFA, DAFF (fisheries), WAFIC, DPIRD, Recfishwest, individual fishery licence holders and other oil and gas operators (if agreed during consultation) ten days before activity commences, and following completion of activities, as per Table 7-5 and Control 4.4 in Section 6.7.4 of this EP. Woodside has consulted WAFIC in the course of preparing this EP. Woodside has assessed the claims or objections raised by WAFIC. No additional measures or controls have been put in place. Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on WAFIC's functions, interests or activities.

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Woodside will apply its Management of Change and Revision process (see Section 7).	

Recreational marine users and representative bodies

Exmouth Recreational Marine Users

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Exmouth Recreational Marine Users on 3 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Exmouth Recreational Marine Users with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside emailed Exmouth Recreational Marine Users on the proposed activity (Appendix F, Reference 1.53) and provided a Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.65).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Review process (see Section 7).	No additional measures or controls are required.

Gascoyne Recreational Marine Users

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Gascoyne Recreational Marine Users on 6 February 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Gascoyne Recreational Marine Users with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 6 February 2023, Woodside sent a letter to Gascoyne Recreational Marine Users on the proposed activity (Appendix F, Reference 1.58) and provided a
 Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.69).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

Recfishwest

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Recfishwest on 27 January 2023 based on their function, interest and activities.

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Recfishwest with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed Recfishwest advising of the proposed activity (Appendix F, Reference 1.42) and provided a Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.72).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has responded to and incorporated feedback from Recfishwest on other Scarborough EPs. Woodside has provided consultation information to Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Marine Tourism Association WA

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Marine Tourism Association WA on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Marine Tourism Association WA with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

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- On 27 January 2023, Woodside emailed Marine Tourism Association WA advising of the proposed activity (Appendix F, Reference 1.42) and provided a Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.72).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

WA Game Fishing Association (WAGFA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to WAGFA on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the WAGFA with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed WAGFA advising of the proposed activity (Appendix F, Reference 1.42) and provided a Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.72).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
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No feedback, objections or claims received despite follow up.	Woodside has provided consultation information to Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

Titleholders and Operators

Chevron Australia / Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Chevron on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to Chevron over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed Chevron advising of the proposed activity (Appendix F, Reference 1.9) and provided a Consultation Information Sheet and titleholders map (Appendix F, Reference 1.10).
- On 27 January 2023, Woodside emailed Chevron Australia advising of the proposed activity (Appendix F, Reference 1.44) and provided an updated Consultation Information Sheet. Woodside requested that Chevron forward the consultation information to Chevron's Joint Venture partners Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon for feedback.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.73).
- On 22 March 2023, Chevron emailed Woodside:
 - Chevron advised it was actively reviewing a list of 10 of Woodside's EP submissions.
 - Chevron advised the current forecast is for the list to be completed by mid-April at the latest, although it has prioritised a list of five EPs to be completed sooner.
 - Chevron requested for Woodside to advise if there is a particular EP that is of higher urgency so that it can prioritise its review accordingly. Once this initial backlog is clear Chevron anticipates being in a position to respond within 30 days.

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- Chevron requested to assist in its review of the potential effect on its interests and activities, could Woodside please provide GIS shape files for the EPs listed (including this proposed activity).
- On 29 March 2023, Chevron emailed Woodside:
 - Chevron advised it had reviewed five of Woodside's EPs that were submitted to Chevron and has captured initial feedback on each.
 - On the proposed activity Chevron provided a comment that no impact has been identified.
 - Chevron raised a general comment that noted if the work plan is executed during the cyclone season, Woodside is to provide cyclone anchor configuration, as well as mooring design, site specific geophysical and geotechnical data, anchor analysis, risk mitigations to inform Chevron Australia of the potential risks to its assets within the affected leases.
- On 3 April 2023, Woodside emailed Chevron:
 - Woodside provided GIS shapefiles for this proposed activity.
 - Woodside advised it would respond to Chevron's feedback dated 29 March 2023 separately.
- On 6 April 2023, Woodside emailed Chevron:
 - Woodside re-attached the GIS shapefiles provided on 3 April 2023.
 - Woodside notes Chevron's feedback that no impact is identified from the proposed updated activities under the Scarborough Drilling & Completions EP.
 - Woodside advised the only Scarborough activity that may involve mooring is the drilling and completions scope in relation to a contingent moored MODU base case is the use of DP MODU. The D&C operational area is ~123 km from the any of Chevron's assets (Janzs being the closest) and therefore there are no credible risks to Chevron assets.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Chevron has provided feedback on the proposed activity noting: No impact identified Chevron has requested: GIS shapefiles for the proposed activity.	Woodside provided GIS shapefiles for this proposed activity. With respect to mooring during cyclone season, Woodside advised Chevron that the only Scarborough activity that may involve mooring is the drilling and completions scope which has an option in the Scarborough Drilling and Completions Environment	Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on Chevron's functions, interests or activities. No additional measures or controls are required.
If the work plan is executed during the cyclone season, Woodside is to provide cyclone anchor configuration, as well as mooring design, site specific geophysical and geotechnical data, anchor analysis, risk mitigations to inform Chevron Australia of the potential risks to its assets within the affected leases.	Plan (D&C EP) for a moored MODU. This is contingent – base case is the use of DP MODU. The D&C operational area is ~123 km from any of Chevron's assets (Janzs) and therefore there are no credible risks to Chevron assets. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the	

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Whilst feedback has been received, there were no objections or claims.	EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	
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Exxon Mobil Australia

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Exxon Mobile on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Exxon Mobile with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed ExxonMobil advising of the proposed activity (Appendix F, Reference 1.9) and provided a Consultation Information Sheet and titleholders map (Appendix F, Reference 1.10).
- On 27 January 2023, Woodside emailed Exxon Mobil Australia advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Finder Energy

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Finder Energy on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Finder Energy with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed Finder Energy advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

KUFPEC

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to KUFPEC on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided KUFPEC with the opportunity to provide feedback over a 4 month period.

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Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed KUFPEC advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Western Gas

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Western Gas on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Gas with the opportunity to provide feedback over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed Western Gas advising of the proposed activity (Appendix F, Reference 1.9) and provided a Consultation Information Sheet and titleholder maps (Appendix F, Reference 1.10).
- On 27 January 2023, Woodside emailed Western Gas advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its	Environment Plan Controls
	Response	

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No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.
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Shell Australia

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Shell on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to Shell over a 23 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed Shell advising of the proposed activity (Appendix F, Reference 1.9) and provided a Consultation Information Sheet and titleholder maps (Appendix F, Reference 1.10).
- On 27 January 2023, Woodside emailed Shell advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 7 February 2023, Shell emailed advising it has no comments on the proposed activity.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Shell advised it has no feedback on the proposed activity.	Woodside notes Shell's advice that it has no feedback on the proposed activity.	No additional measures or controls are required.
Whilst feedback has been received, there were no objections or claims.	Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

Santos

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Santos on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Santos with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed Santos advising of the proposed activity (Appendix F, Reference 1.43) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

OMV Australia / Sapura OMV Upstream (WA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to OMV Australia on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the OMV Australian with the opportunity to provide feedback over a 4 month period.

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Summary of Consultation Provided and Record of Consultation:

- On 27 January 2023, Woodside emailed OMV Australia / Sapura OMV Upstream (WA) on the proposed activity (Appendix F, Reference 1.43) and provided a
 Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.74).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

INPEX Alpha

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to INPEX Alpha on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the INPEX Alpha with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

- On 27 January 2023, Woodside emailed INPEX Alpha advising of the proposed activity (Appendix F, Reference 1.95) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.79).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the	No additional measures or controls are required.

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EP has been accepted, it will be assessed a	and, where
appropriate, Woodside will apply its Managi	gement of
Change and Revision process (see Section	n 7).

Scarborough Drilling and Completions Environment Plan

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Peak Industry Representative Bodies

Australian Petroleum Production & Exploration Association (APPEA)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since 2July 2021.
- Consultation information provided to APPEA on 2 July 2021 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the APPEA with the opportunity to provide feedback over a 21 month period.

Summary of information provided and record of consultation:

- On 2 July 2021, Woodside emailed APPEA advising of the proposed activity (Appendix F, Reference 1.2) and provided a Consultation Information Sheet.
- On 27 January 2023, Woodside emailed APPEA advising of the proposed activity (Appendix F, Reference 1.38) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.62).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

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Traditional Custodians

Ngarluma Aboriginal Corporation (NAC)

NAC is established under the Native Title Act 1993 by the Ngarluma people to represent the Ngarulma people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with NAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Sufficient Information:
 - Woodside Sought direction on NAC's preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of NAC's choosing, with NAC nominated representatives. This meeting included information that was readily accessible and appropriate.
 - Provided Consultation Information Sheets and Consultation Summary Sheets to NAC
 - Articulated planned and unplanned environmental risks and impacts, with proposed controls.
 - Set out in detail what was being sought through consultation.
 - Asked for the consultation and information sheets to be distributed to members and individuals.
 - Provided NOPSEMA's guidelines and brochure on consultation.
 - Provided response to questions asked about the activity through consultation.
 - Advised that NAC can request that particular information provided in the consultation not be published (to align with 11A(2)(4))
- Reasonable Period:
 - Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
 - Consultation information provided to NAC on 20 January 2023 based on their function, interest, and activities.
 - Woodside has addressed and responded to NAC over 9 months, demonstrating a "reasonable period" of consultation.

Woodside asked NAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via a meeting and written exchanges to further understand the environment in which the activity will take place. NAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NAC's functions, interests or activities.

Summary of information provided and record of consultation:

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- On 20 January 2023, Woodside emailed NAC advising of the proposed activity (Appendix F, Reference 1.28) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. Woodside made it clear it was prepared to consult in the manner and location preferred by NAC and resource the meeting appropriately. Woodside requested that the information be forwarded to NAC members as required.
- On 26 January 2023, Woodside and NAC representatives met to discuss the proposed activity in more detail.
- On 3 February 2023, Woodside and NAC representatives met in Roebourne to discuss how best to consult on the proposed activity.
- On 17 February 2023, Woodside spoke with NAC representatives to discuss the proposed activity and to plan further engagement on a range of Woodside EPs. NAC representatives stated there would be opportunity at the NAC March Board meeting for further engagement.
- On 24 February 2023, Woodside sent a follow up email on a range of Woodside EPs, including the proposed activity and following on from the 17 February 2023 meeting (Appendix F, Reference 1.81). Woodside noted it was seeking NAC's feedback as soon as possible on the proposed activity. Woodside made it clear it was prepared to consult in the manner and location preferred by NAC and resource the meeting appropriately.
- On 24 February 2023, NAC emailed Woodside acknowledging receipt of Woodside's emails noting that it was yet to attend to the emails and would do so following the w/c 27 February 2023.
- On 9 March 2023, Woodside emailed NAC and left a phone message to follow up on the email received 24 February 2023. Woodside advised it was seeking opportunity for Woodside to present to the NAC board with an EP overview and asked if there had been any progress in terms of securing a preferred day and timeslot.
- On 9 March 2023, NAC emailed Woodside to advise that the contact at NAC was unavailable to meet on 30 March 2023.
- On 9 March 2023, Woodside emailed NAC:
- Woodside noted that during a previous meeting, NAC had advised its next board meeting would be held on 29 and 30 March 2023 and that Woodside would potentially be assigned time on the agenda to present to the NAC Board on either one of those days.
- Woodside advised that this is an important opportunity to ensure that NAC board have the opportunity to provide feedback on the Environmental Plans and note if they have interests in the environment that may be affected (EMBA).
- · Woodside welcomed the suggestion of alternative days/times or ways that it can provide an overview to the NAC Board.
- On 10 March 2023, NAC emailed Woodside to advise that its March Board Meeting was full of overspills from January and February and at this stage will need to leave the Environmental Plan consultation until the April meeting.
- On 14 March 2023, Woodside emailed NAC to request the dates for the April board meeting and to confirm what time Woodside might be allocated to present at NAC's earliest convenience.
- On 14 March 2023, NAC emailed Woodside to advise that the Board meeting is tentatively set for 29th April 2023. NAC advised this needed to be confirmed with its Board before it could commit to a time or date.
- Between 12-17 April, NAC and Woodside exchanged emails with Woodside seeking confirmation of the April board date and whether Woodside would have time on the agenda.
- On 17 April, Woodside emailed NAC noting there had been no confirmation of an April meeting and seeking advice on whether NAC have feedback in relation to the proposed activities. The email explained that Woodside's plan to submit the EP and was seeking pre-submission feedback, noting that feedback could be provided for the life of the EP. Woodside sought an email supporting the approach and looked forward to meeting in future.

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- On 20 April 2023, NAC emailed Woodside acknowledging receipt of the materials and asked questions of an unrelated EP.
- On 20 April 2023, NAC emailed Woodside noting that the next board meeting would be 26 April 2023 and asking if Woodside still would like to attend.
- On 20 April 2023, Woodside emailed NAC confirming that Woodside would appreciate time to present at the Board meeting.
- On 20 April 2023, NAC emailed Woodside requesting any documentation for the board meeting packs.
- On 21 April 2023, NAC advised that there was no time for Woodside on the April agenda, but time would be set aside for May, with a tentative date of 17 May 2023.
- On 21 April 2023, Woodside thanked NAC for their response.
- On 26 April 2023, Woodside emailed NAC with an information sheet on another activity and responded to some queries about spill response which generated from a
 phone discussion and NAC's email of 20 April 2023.
- On 28 April 2023 Woodside emailed NAC advising that the next step was for the EP to be submitted but no feedback had been received to date. The email stated that before Woodside submits, Woodside sought to understand whether there were any issues or concerns with the proposed activities that needed to be reflected in the EP.
- (2) On 10 May 2023, NAC replied to Woodside stating that they were supportive of the submission of the EP and look forward to ongoing consultation.
- On 12 May 2023, NAC emailed Woodside to notify that Woodside had been allocated a one-hour window in the NAC Board Meeting of 17 May 2023.
- On 17 May 2023, Woodside presented to the NAC Board of Directors in Karratha:
- Woodside opened the meeting with introductions.
- Woodside thanked the Ngarluma Aboriginal Corporation (NAC) for inviting Woodside Energy to speak with them and provided Acknowledgement of Country
- Woodside talked through agenda and reasons for consultation.
- Woodside introduced the regulations it needed to comply with and the role of NOPSEMA.
- Woodside explained that many of its activities could impact Ngarluma country in the highly unlikely event of an oil spill, and some activities like Scarborough could have a more direct impact.
- Woodside referred to an example EMBA and described how it is comprised of many replicates of a single spill.
- Woodside explained that they are consulting with many people up and down the coastline including multiple Aboriginal Corporations.
- Woodside proposed what consultation outcomes it would like to meet with NAC, including understanding:
 - How the activities could impact cultural values, functions, interests, or activities.
 - Whether protecting the environment is enough to protect these things.
 - What NAC's concerns are about the proposed activities and what NAC thinks Woodside should do about it?
 - If there was anything NAC would like included in EPs.
- Woodside noted that feedback would be welcomed throughout the life of all Environment Plans.
- Woodside provided a high-level overview of the Scarborough project.
- Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline
 Installation and Subsea Infrastructure Installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of a video
 showing the general process of drilling and completions which was designed for public audience.

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- (1) NAC asked when these activities were proposed to happen, Woodside responded later this year pending government approvals.
- (1) NAC asked how many people crew the drill rig, Woodside responded that it's usually over 100 people.
- Woodside asked if there was any further feedback or questions about these activities, none were received.
- Woodside described the planned and unplanned environmental impacts and risks of the activities described in the meeting and proposed controls, in accordance with the Information Sheets.
- Woodside asked whether there were questions on the environmental risks and impacts, none were received.
- Woodside noted that any questions or considerations could be directed through Woodside, or the Quarterly Heritage Meetings which NAC has a standing invite to, noting that those meeting were also an opportunity to discuss job opportunities and other matters.
- Woodside left hard copies of Information Sheets and Plain Language Summaries for each discussed activity with NAC attendees.
- On 18 July 2023, Woodside emailed NAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that NAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. No response was received to this email.
- On 26 July 2023, Woodside emailed NAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 2 August 2023, Woodside emailed NAC regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether NAC was aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 9 August 2023, Woodside emailed NAC again seeking feedback and information relating to the accepted Scarborough EP with the same EMBA, stating the conditions of acceptance:
- if NAC were aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
- if there was any information, they wished wish to provide on cultural features and/or heritage values.
- the email gave the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement.
- the email also described the purpose of consultation.
- On 10 August 2023, NAC emailed Woodside to express limited capacity and notify an alternate contact who would be handling EP consultation.
- On 10 August 2023, Woodside emailed NAC apologising for the influx of emails and confirming contact details.
- On 11 August 2023, Woodside held a web meeting with NAC to discuss plans for consultation. NAC requested a list of EPs for which Woodside would seek input from NAC. NAC indicated that it would establish a Working Group which would hold bi-monthly engagements with Woodside. It also noted ongoing capacity issues.
- On 16 Aug 2023, Woodside emailed NAC seeking to re-establish a regular meeting cadence and proposing to commence in the following week.
- On 15 September 2023, Woodside emailed NAC acknowledging the previous email, advising of the planned start date for the activity, and once again requesting if NAC was aware of any other people with whom Woodside should consult, and if there was any information NAC wished to provide on cultural values. The email requested

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this information prior to 28 September 2023, but reiterated that Woodside would take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.81.1).

- (3) On 18 September 2023, NAC emailed Woodside proposing:
 - establishment of Joint Working Group.
 - Woodside to provide draft agreement.
 - Working group meeting commence in October with monthly meetings.
 - Noting arrangements would cover future scope of consultations with NAC.
- On 28 September 2023, NAC representative emailed Woodside requesting a phone discussion about consultations with NAC.
- (3) On 28 September 2023, Woodside had a phone discussion with NAC representative, they were following up on Woodside consultation requests and wished to progress a consultation meeting with NAC Working Group in October. They requested Woodside:
 - Propose date/s to meet.
 - Confirm they would cover cost.
 - Provide any relevant information prior to the meeting.
 - Advise which Eps Woodside would like to consult with NAC on.
 - Woodside agreed to follow up on the above and looked forward to meeting with the Working Group in October.
- On 10 October 2023, Woodside emailed NAC in response to their email of 18 September 2023, with in principle support of NAC's proposal for ongoing consultation through a Working Group. Woodside requested meeting dates and confirmed that Woodside would provide a first draft of the agreement.

Quarterly Heritage Meetings:

- Woodside convenes a quarterly meeting of Traditional Custodian representatives from the Representative Aboriginal Corporations involved in historical native title claims
 over the Burrup Peninsula, including NAC. Individual attendees are nominated by their representative Aboriginal Corporations. These meetings are summarised separately
 in this table.
- NAC did not nominate attendees to quarterly meetings in 2021 or the first half of 2022 but were provided with copies of the slides used which included overviews of the Scarborough Project.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
 (1) During face-to-face engagements related to this activity and others, NAC asked: When the activities were proposed to commence. How many people crew the drill rig. 	(1) Woodside responded to NAC requests for further information during face-to-face engagements, and no further information was requested on these topics.	 (1) Existing controls considered sufficient as described in Section 6. (2) & (3) Woodside is implementing a program to actively support Traditional Custodians' capacity

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- (2) NAC emailed Woodside on 10 May 2023, supporting submission of this EP and looking forward to ongoing consultation.
- (3) NAC proposed establishing a Joint Working Group to engage in meetings with Woodside for ongoing consultation. NAC noted they have capacity issues and require resourcing to cover costs of meeting.
- (2) NAC is supportive of this EP submission.
- (3) Separate from consultation under Reg 11A, Woodside will establish an agreement with NAC to work with the NAC Working Group. The agreement and Working Group would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, a face-toface meeting with appropriate material (pictures, maps, video) and project attendance allowing opportunity to ask questions and seek further understanding.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1).

for ongoing engagement and consultation on environmental plans referenced as **PS 4.9.1** in this EP. This includes continued engagement through the proposed Framework Agreement which will be applied to ongoing consultation.

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Murujuga Aboriginal Corporation (MAC)

MAC is established under the Burrup and Maitland Industrial Estates Agreement and is the representative body for the Traditional Custodians for Murujuga being the Ngarluma, the Mardudhunera, the Yaburara, the Yindjibarndi, and the Wong-Goo-Tt-Oo peoples (collectively Ngarda-Ngarli). MAC is the cultural authority for Murujuga and is responsible for the management and protection of its cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with MAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

Sufficient Information:

- Woodside Sought direction on MAC's preferred method of consultation. This resulted in face-to-face meetings being coordinated at the location of MAC's choosing, with MAC nominated representatives. These meetings included information that was readily accessible and appropriate.
- Provided Consultation Information Sheets and Consultation Summary Sheets to MAC
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's guidelines and brochure on consultation.
- Provided response to questions asked about the activity through consultation.
- Advised that MAC can request that particular information provided in the consultation not be published (to align with 11A(2)(4))

Reasonable Period:

- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside first met with MAC to discuss the activity in August 2020
- Consultation information provided to MAC on 20 January 2023 based on their function, interest, and activities.
- Woodside has addressed and responded to MAC over three years, demonstrating a "reasonable period" of consultation.

Woodside asked MAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. MAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on MAC's functions, interests or activities.

Summary of information provided and record of consultation:

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Historical Engagement

- On 25 August 2020, Woodside CEO and MAC Board met in person at the MAC office on Murujuga about several issues including high-level summary of Scarborough project.
 - MAC members expressed a positive opinion of Woodside and a desire to work together in partnership to achieve future ambitions.
- On 2 October 2020, Woodside email MAC to request advice on progressing a Scarborough ethnographic survey, to be completed by MAC with a final report provided to Woodside.
- On 5 October 2020, MAC called Woodside to discuss way forward with the proposed Scarborough ethnographic survey.
- On 6 October 2020, Woodside emailed MAC to confirm arrangements and request an updated quote.
- On 8 October 2020, Woodside finalised the requested scope of works for the ethnographic survey to identify heritage values known to exist in the nearshore or offshore footprints of the Scarborough project or surrounding seascape.
- From 20-22 October 2020 members of MAC's Circle of Elders participated in an on-country ethnographic survey with both male and female heritage consultants, consistent with industry standard practice. The heritage consultants were selected by MAC, who also coordinated the survey and guided the consultations. The resulting report is owned by MAC and was approved by the Circle of Elders prior to being provided to Woodside. This survey included the entire Scarborough Project development area, including the Operational Area for this EP. This survey was undertaken at a landscape level. Due to the distance of the Operational Area from onshore and coastal areas where the participants are known to hold rights and interests it was not practical to limit the scope of this assessment to a defined boundary. Additionally, in areas of open water beyond the Ancient Landscape that would have been occupied by ancestral people, the relevant values are not expected to have clearly defined or discrete distributions. Therefore, participants were provided with a map of the Scarborough development and asked to identify any values in the surrounding landscape. Consistent with the understanding that cultural values cannot be extrapolated over long distances offshore beyond any native title claims, determinations or ILUAs, no cultural values were identified in the Operational Area or EMBA (McDonald and Phillips 2021). Recommendations of the report related to onshore, nearshore islands and the Ancient Landscape outside the Operational Area of this EP.
- On 10 March 2021, Woodside provided an overview of the Scarborough project to MAC's CEO. No feedback was received on the proposed activity.
- On 19 and 20 May 2021, Woodside provided an overview of the Scarborough project to MAC's Circle of Elders. No feedback was received on the proposed activity.
- On 7 July 2021, a meeting was held with a presentation and discussion about submerged heritage assessments completed to date and mitigations proposed.
- On 11 November 2021, MAC provided Woodside a presentation/position about intangible heritage values.
- On 15 December 2021, Woodside met with MAC Board and Circle of Elders to provide a project overview.
- (3) On 9 January 2022, Woodside sent a letter to MAC clarifying roles, composition, funding and milestones around the Heritage Management Committee.
- (1 & 2) On 2 February 2022, Woodside proposed to MAC the establishment of a Heritage Management Committee (HMC) whose role would be to consider the necessary mitigation measures required to address any new heritage information arising following certain milestones related to the Scarborough Project and advise Woodside where any additional mitigation measures are recommended and of any other actions MAC or Woodside should consider.
- On 25 February 2022, an all-day meeting was held between MAC and Woodside on heritage management and on 28 February 2022 an email of action items from
 meeting held on 25 February was sent to MAC.
- On 18 May 2022, Woodside sent a letter to MAC requesting clarity from MAC on whether the Phase II ethnographic survey for Scarborough is still supported by MAC.

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- (3) On 15 June 2022, Woodside held a meeting with MAC to discuss the scope, purpose, and composition of the Heritage Management Committee (HMC). MAC committed to providing feedback on the HMC in writing.
- On 28 June 2022, MAC provided a letter to Woodside reconfirming their commitment to carry out the Phase II survey.
 - Woodside remains committed to supporting MAC to conduct the Phase II works at the earliest date convenient to MAC and their preferred consultant but will also respect any decision by MAC not to proceed.
 - Woodside believes it has taken all reasonable steps to progress this work and is committed to support this additional ethnographic survey work to be undertaken, subject to MAC undertaking the works.
 - Available bathymetric and other geophysical data is depicted in UWA 2021 and was provided to MAC on 18 May 2021 after the survey but prior to receiving McDonald and Phillips 2021.
- (2) On 20 September 2022, Woodside sent an email to MAC seeking permission to share ethnographic survey results with NOPSEMA.
- (3) On 9 January 2023, Woodside sent a letter to MAC regarding the proposed Heritage Management Committee.

Ensuring Sufficient Information and Reasonable Period of Time

- On 20 January 2023, Woodside emailed MAC advising of the proposed activity (Appendix F, Reference 1.30) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. Woodside also outlined:
 - In preparation for this work, Woodside had undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).
 - Woodside is seeking to understand the nature of the interests that Murujuga Aboriginal Corporation (MAC) and its members may have in the 'Environment that May Be Affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet that was attached.
 - Woodside advised that it understands that it will be attending the MAC board meeting on 24 January 2023 to discuss this and information relating to a separate Woodside activity.
 - Woodside advised it would be pleased to speak with MAC members in addition to the MAC Board / office holders.
- (5) On 25 January 2023, Woodside presented to the MAC Board on the status of the proposed Drilling &Completions activity. The meeting included the following topics relating to the proposed activity and the broader Scarborough Project:
 - EMBA map explained and left with MAC for information.
 - Plain English fact sheets provided (Appendix F, Reference 1.26 and 1.27)
 - MAC reiterated role of Board v Circle of Elders in consultation processes.
 - Local content outcomes continue to be a priority for MAC and its members.
 - Woodside was scheduled to meet with MAC on 16 February, but due to last minute unavailability of the MAC consultant, the meeting was postponed until 20 February 2023. While awaiting the postponed meeting, Woodside proceeded to meet with MAC's CEO to discuss the project including the proposed activity. No feedback was received.

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- (2) On 20 February 2023, Woodside presented to the MAC CEO and consultant to discuss the project including the Scarborough Drilling & Completions EP. The meeting focused on scope and results of an ethnographic survey conducted in 2020, in context of the proposed activity and the broader Scarborough Project.
- On 24 February 2023, Woodside sent a follow up email on a range of Woodside EPs, including the proposed activity and following on from the 20 February 2023 meeting. Woodside noted it is seeking MAC's feedback as soon as possible on the proposed activity.
- On 7 March 2023, Woodside spoke with MAC to follow up on the material provided and sought meetings with the Board and Circle of Elders if required.
- On 30 March 2023, Woodside spoke with MAC and followed up on the material provided.
- On 3 April 2023, MAC emailed Woodside asking for a list of outstanding issues that Woodside would like to progress.
- On 5 April 2023, Woodside responded to MAC via email with a list of open topics, which included the request for feedback on the proposed activity. Woodside
 requested advice from MAC on:
 - How the activity could impact cultural values
 - If MAC proposes anything to be included in the EP prior to submission.
 - If MAC would like a meeting to discuss the activity.
 - Whether MAC intended to provide advice prior to EP submission.
- On 12 April 2023, Woodside spoke with MAC regarding several topics including feedback on the proposed activity. MAC responded that their Board of Directors ae meeting soon and that Woodside can expect a forward plan on EP consultation.
- On 5 June 2023, MAC emailed Woodside to confirm the Board and Elders meeting date and noted they would send a quote for costs shortly.
- (1) On 22 June 2023, Woodside met with the MAC Board and Circle of Elders:
 - Woodside described the Environment Plan framework, referring to the offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations. NOPSEMA's role as regulator and general contents of Environment Plans.
 - Woodside encouraged MAC to raise anything which they felt was missing in the information provided during the meeting.
 - Woodside displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Woodside provided an overview of the broader Scarborough Project.
 - Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline installation and Subsea infrastructure installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of the video showing the general process of drilling and completions which was designed for public audience.
 - Woodside described planned and unplanned environmental risks and impacts in accordance with tables provided in the information sheets for the activity emphasising that unplanned risks are not expected to occur and are unlikely.
 - The EMBA for each proposed Scarborough activity was displayed, and the individual worst-case loss of containment scenarios identified knowing that they are all diesel fuel releases which would only be caused by vessel collisions.
- On 18 July 2023, Woodside emailed MAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that MAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.

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- (6) On 21 July 2023, MAC emailed a letter to Woodside. The letter confirmed that MAC have no concerns at this time with regards to this EP. MAC confirmed their desire for ongoing engagement and appreciated Woodside's commitment to this.
- On 26 July 2023, Woodside emailed MAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 2 August 2023, Woodside emailed MAC regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether MAC is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 9 August 2023, Woodside emailed MAC again seeking feedback and information relating to an accepted Scarborough EP with the same EMBA, stating the
 conditions of acceptance:
 - if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
 - if there is any information you wish to provide on cultural features and/or heritage values
 - the email gave the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement.
 - the email also described the purpose of consultation.
- On 21 August 2023, Woodside emailed MAC seeking MAC's cultural clarifications about information in relation to Songlines, Elder status and whether cultural information about Murujuga can be held by individuals and not known to others.
- On 1 September 2023, MAC emailed a letter to Woodside noting the following:
 - In response to Woodside's email of 21 August, MAC consulted with women appointed to their Circle of Elders
 - MAC is comfortable that the women in the Circle of Elders are the right people to be consulted about these matters.
 - MAC notes that it would be extremely unusual for knowledge to be held by an individual without surrounding groups knowing about it.
 - The Circle of elders themselves represent the Ngarda-Ngarli; the collective term for the Traditional Custodians who look after Murujuga Country.
- On 15 September 2023, Woodside emailed MAC advising of the planned start date for the activity, and once again requesting if MAC is aware of any other people with whom Woodside should consult, if there is any information MAC wish to provide on cultural features and/or heritage values. The email requested this information prior to 28 September 2023, but reiterated that Woodside will take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.30.1). No response was received to this email.
- On 4 October 2023, Woodside phoned MAC to discuss the cultural appropriateness of a proposed visit to Rosemary Island, requested by a self-identifying Traditional Custodian. Woodside was advised not to undertake the trip due to cultural safety concerns.
- On 4 October 2023, MAC emailed Woodside thanking them for the call and informing Woodside that it is MAC's expectation that Woodside continues to request advice regarding cultural safety prior to such trips being undertaken.
- On 4 October 2023, Woodside emailed MAC thanking them for their advice, confirming the trip had been cancelled and that Woodside would continue to seek MAC's
 advice on similar matters in future.

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(1) MAC have provided significant valuable input into the management of known and potential cultural and heritage values in the broader Scarborough Project footprint. During face-to-face engagements related to this activity and others, MAC requested further information on topics related to this proposed activity which were responded to in correspondence and during the meetings: This EP does not account for indirect impacts as a result of the broader Scarborough Project (e.g., potential impacts to Murujuga from onshore emissions associated with processing Scarborough gas). (2) Uncertainty over the results of further ethnographic

Summary of Feedback, Objection or Claim

- (2) Uncertainty over the results of further ethnographic surveys, as new heritage values identified may require further mitigations.
- (3) MAC's input has helped shape the structure and operation of the HMC described in 7.5 including their advice:
 - That recommendations of the HMC need not be unanimous,

Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response

- (1) Woodside responded to MAC's request for further information during face-to-face engagement, and in writing, no further information was requested on these topics.
 - The EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program, having regard to the nature and scale of the proposed Petroleum Activities Program. The extraction of Scarborough gas for onshore processing is not included in the Petroleum Activities Program for this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this Petroleum Activities Program but will be evaluated in future Scarborough Eps as appropriate.
- (2) The completed ethnographic surveys, which align with industry practice, have not identified any heritage risks. Woodside remains committed to the further ethnographic surveys planned for the Scarborough project which go beyond industry standards and is ready to progress these at MAC's

Environment Plan Controls

- (1) Existing controls considered sufficient as described in Section 6. Woodside recognises that whales and other species of totemic importance need to be protected, including their populations and migration patterns (Section 4.9.1). As assessed in Section 6, Woodside considers that when the impacts and risks to marine species, including potential totemic species, have been reduced to ALARP and an acceptable level in offshore areas, the potential impacts and risks to cultural values associated with coastal Indigenous connection with, or traditional uses of marine species and associated ecosystems in nearshore coastal waters are also reduced to ALARP and an acceptable level.
- (2) & (3) Woodside and MAC have established the Heritage Management Committee. Recommendations of the HMC will be implemented where they (independently or in conjunction with other actions) lower the risk of impacts to heritage to ALARP. New heritage information, where applicable to this proposed activity, will be addressed as part of ongoing consultation (Table 7.5). No additional measures or controls have

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- That the HMC include MAC staff in addition to MAC Board, executive and Circle of Elders, and
- That developments in regard to the World Heritage listing of the Murujuga Cultural Landscape does not trigger any meeting of the HMC.
- (4) MAC directed that consultation be undertaken with both the board and the Circle of Elders, which was implemented.
- (5) On 21 July 2023, MAC sent a letter to Woodside acknowledging the consultation on 22nd June and stating they had no concerns with this EP at this time.

- earliest availability. The results of these surveys will be addressed through the Heritage Management Committee.
- (3) Woodside has agreed to the matters advised by MAC regarding the HMC with regards to the requirement for unanimous recommendations, membership of the HMC and the appropriate triggers for HMC meetings.
- (4) Woodside continues to engage with MAC on the Scarborough project generally and has committed to ongoing consultation with MAC Board and Elders.
- (5) MAC is supportive of this EP submission.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1).

- been put in place in this EP (Refer to Scarborough Seabed Intervention and Trunkline Installation EP for controls relating to HMC).
- (4) And (5) Not required.

Wirrawandi Aboriginal Corporation (WAC)

WAC is established under the Native Title Act 1993 by the Mardudhunera and Yaburara people to represent the Mardudhunera and Yaburara people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with WAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Sufficient Information:
 - Woodside Sought direction on WAC's preferred method of consultation. This resulted in two face-to-face meetings being coordinated at the location of WAC's choosing, with WAC nominated representatives. These meetings included information that was readily accessible and appropriate.
 - Provided Consultation Information Sheets and Consultation Summary Sheets to WAC.

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- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's guidelines and brochure on consultation.
- Provided response to questions asked about the activity through consultation.
- Advised that WAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4))

Reasonable Period:

- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to WAC on 20 January 2023 based on their function, interest, and activities.
- Woodside has addressed and responded to WAC over 9 months, demonstrating a "reasonable period" of consultation.

Woodside asked WAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. WAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on WAC's functions, interests or activities.

Summary of information provided and record of consultation:

- On 20 January 2023 Woodside emailed WAC advising of the proposed activity (Appendix F, Reference 1.32) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. The email requested information on the interests that WAC and its members may have within the EMBA, information on how WAC would like to engage, and requested that WAC provide information to members.
- On 27 January 2023, Woodside placed a phone call and emailed WAC to follow up on the information provided (Appendix F, Reference 1.32) and information sought:
 - Woodside noted the upcoming opportunity to meet with WAC on 21 February while it was in Karratha and proposed sending a time to meet to discuss the information Woodside has provided on several Woodside activities and EMBAs, including this proposed activity.
 - Woodside wanted to gain an understanding on the best way to progress and whether the WAC Board wish to have further discussions in relation to this information and how they prefer Woodside to engage for any future consultations.
- On 21 February 2023, Woodside spoke with WAC to discuss the proposed activity and plan a consultation meeting.
 - On 24 February 2023, Woodside sent a follow up email on a range of Woodside EPs, including the proposed activity and following on from the 21 February 2023 meeting (Appendix F, Reference 1.82). Woodside noted it was seeking WAC's feedback on the proposed activity as soon as WAC was available.

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Woodside also requested confirmation of the opportunity to meet with the WAC Board when they are next due to meet in Perth in March. Further details and associated costs will be discussed once the meeting has been confirmed, in discussion with Woodside.

- On 24 February 2023 WAC emailed Woodside, WAC acknowledged receiving the EP information and the meeting with proposed for the Elders and Directors in March, but that the meeting is still yet to be finalised. Further details and associated costs will be discussed once the meeting has been confirmed, in discussion with Woodside.
- On 7 March 2023, WAC emailed Woodside to advise a draft agenda has been set and Woodside has been allotted Thursday 23 March 2023 for presentation.
- On 7 March 2023, Woodside emailed WAC welcoming this opportunity and advised it was looking forward to receiving further information in relation to timing and location.
- On 8 March 2023, WAC agreed by phone to meet with Woodside and a full meeting of the Board and Elders on 23 March 2023 in Perth.
- On 8 March 2023, Woodside phoned WAC and agreed to proceed with the meeting.
- On 9 March 2023, Robe River Kuruma Aboriginal Corporation (RRKAC) emailed Woodside (and copied in the CEO of WAC) and advising it has discussed the proposed activity with the Robe River Kuruma Heritage Advisory Committee and they have recommended that the interests of Robe River Kuruma people are best served through the joint Heritage Advisory Committee that is required under Yaburara Mardudhunera and Kuruma Marthudunera Indigenous Land Use Agreement.
 - RRKAC also suggested that WAC is required to facilitate this Committee and noted there is an emerging need to deal with other proponent matters, so there is an opportunity to link the engagement from a meeting efficiency perspective. Since the separate meeting with WAC had already been arranged, Woodside decided to proceed with both meetings.
- On 15 March 2023, Woodside emailed WAC to follow up on details relating to the meeting of the Board and Elders on 23 March 2023 in Perth.
- On 15 March 2023, WAC emailed Woodside:
 - WAC advised the 23 March 2023 meeting has been scheduled and arranged.
 - WAC advised that as discussed previously the intention is to present to WAC Directors and Elders on information requires WAC feedback.
 - Woodside has continued to engage WAC on the proposed activity and in relation to presenting at the upcoming Board and Elders meeting.
- On 16 March 2023, WAC emailed Woodside to confirm conference room booking and guerying numbers for meeting of 31 March 2023.
- On 17 March 2023, Woodside emailed WAC:
 - Woodside advised it was looking forward to connecting and will ensure relevant representation to provide the suite of EP information overviews and will cover the broader community activity for awareness as requested.
- On 17 March 2023, Woodside emailed WAC re Joint Heritage Advisory Group, confirming numbers at meeting from Woodside (copied to RRKAC).
- (1 & 2) On 23 March 2023, Woodside presented to a meeting of the WAC Board and Elders in Perth:
 - Woodside described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Woodside encouraged WAC to raise anything which they felt was missing in the information provided during the meeting, or any issues or concerns.
 - Woodside displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.

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- Woodside provided an overview of the broader Scarborough Project and overview of activities.
- Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline Installation and Subsea Infrastructure Installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of a video showing the general process of drilling and completions which was designed for public audience.
- (1) (2) WAC asked a number of questions relevant to the broader Scarborough Project which were responded to in the meeting:
 - Emergency preparedness
 - The relevance of the EMBA to consultation
 - Whether activities stop during whale migration.
 - Potential impact of noise on whale communication.
 - Whether a diesel spill would only be on the surface.
 - How long diesel stays in the environment.
 - What happens if something is dropped into the ocean.
 - How soon is a spill responded to.
 - Whether the turtle monitoring program is still in place.
 - How many wells will be drilled for Scarborough.
 - How the EMBA influences consultation
- Woodside described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
- The EMBA for each proposed Scarborough activity was displayed, and the individual worst-case loss of containment scenarios identified, noting that they are all diesel fuel releases which would only be caused by vessel collisions.
- (1) WAC asked how the EMBA influences consultation, Woodside responded that the EMBA has always been understood but it is now being used to identify people who may have an interest in the activity.
- Woodside noted this concluded the Scarborough section of the meeting and called for any further guestions or feedback. None were received.
- WAC stated that this kind of information sharing is important, and that Woodside's time is appreciated. WAC asked whether this type of information is broadly available to the community, Woodside responded that there are several open community sessions available in the region where it could be discussed.
- WAC indicated that since they are engaging with several energy industry operators, they will consider the information provided and discuss internally before any further response.
- Woodside provided personal contact details for further feedback.
- Woodside provided NOPSEMA contact details, should WAC desire to provide feedback directly to the regulator.
- On 24 March 2023, Woodside emailed WAC, acknowledging the amount of information WAC had to absorb and confirming a meeting place for the upcoming week.
- On 24 March 2023, WAC emailed Woodside acknowledging a great presentation and confirming they would meet in in Woodside office, Woodside responded by email on the same day.
- On 31 March a consultation meeting was held in Karratha with WAC/RRKAC Heritage Advisory Committee. This meeting is recorded under Robe River Kuruma Aboriginal Corporation (RRKAC).
- On 3 May 2023, Woodside emailed a letter to WAC as a follow up to the 23 March meeting held in Perth with WAC Directors and Elders:

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- Woodside thanked WAC for the careful consideration of matters.
- Acknowledge the WAC have interests in the EMBA.
- Woodside provided a response on matters raised at the meeting by WAC.
- On 3 May 2023, Woodside emailed a letter to WAC regarding the meeting with the joint Robe River Kuruma and Wirrawandi Joint Heritage Advisory Committee (HAC) on 31 March:
 - Woodside thanked the HAC for the meeting, their careful consideration of the matters and feedback provided.
 - Woodside acknowledged that the HAC have interests in the EMBA and noted that we want to ensure impacts are as minimal as reasonably practicable.
 - A high-level overview of presented topics was provided.
 - Woodside provided responses to questions noted from the meeting that were not related to the proposed activity. Woodside notified that the feedback and the letter will be included in Environment Plans that will be submitted to NOPSEMA.
- On 21 June 2023, WAC emailed Woodside stating that the appropriate form of consultation was to fund and schedule a presentation to members.
- Between 21 June 2023 and 28 June 2023, emails were exchanged settling a date and time for Woodside to meet with the WAC Board. Woodside agreed to funding with the budget settled between WAC and Woodside.
- On 6 July 2023, Woodside reconfirmed the date with WAC by telephone.
- On 18 July 2023, Woodside emailed WAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that WAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 26 July 2023, Woodside emailed WAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
 - On 2 August 2023, Woodside emailed WAC regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether WAC is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
 - On 3 August 2023, WAC emailed Woodside requesting a map of relevant Commonwealth and State EMBAS.
 - On 9 August 2023, Woodside emailed WAC again seeking feedback and information relating to the accepted Scarborough EP with the same EMBA, stating the
 conditions of acceptance:
 - if they were aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
 - if there was any information they wished to provide on cultural features and/or heritage values.
 - The email gave the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement. The email described the purpose of consultation.
 - On 10 August 2023, Woodside emailed WAC providing a list (as requested by WAC) of current and pending EP's.
 - On 10 August 2023, WAC emailed Woodside with thanks for the information and with a general query about EMBA's.

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- On 10 August 2023, WAC emailed Woodside stating that it did not have any objections to activities under the Scarborough EP which had been accepted, based on understanding that it does not involve seabed disturbance, the EMBA is outside the general area that Yaburara and Mardudhunera people have interests and typically undertake activities WAC also noted they would provide a formal written response to the 19 July 2023 meeting in relation to proposed ongoing consultation and to activities and Eps for which WAC may be considered relevant persons.
- On 15 August 2023, Woodside emailed WAC providing an explanation of the query in relation to EMBA's and EMBA development.
- On 15 August 2023, WAC emailed Woodside with thanks for the clarification and noting they would provide a formal response shortly.
- (3) On 31 August 2023, WAC emailed a letter to Woodside proposing a framework agreement to provide a streamlined, formalised approach to consultation between WAC and Woodside. The agreement would articulate risk re activities to environment, sea-country, heritage and/or cultural activities.
- (3) On 11 September 2023, WAC emailed Woodside with a copy of the letter of 31 August, and advising that WAC does not object to Woodside progressing environment plans for the activities outlined on the proviso that Woodside and WAC enter into a framework agreement to provide for ongoing meaningful consultation with WAC and YM members in relation to activities the subject of Eps, as outlined in the attached letter on terms suitable to both parties within a reasonable period (nominally within the next 2-3 months).
- On 12 September 2023, Woodside emailed WAC confirming receipt of the email of 11 September.
- On 18 September 2023, Woodside emailed WAC advising of the planned start date for the activity, and once again requesting if WAC is aware of any other people with whom Woodside should consult, and if there is any information WAC wish to provide on cultural values. The email requested this information prior to 02 October 2023, but reiterated that Woodside will take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.82.1). No response was received to this email.

Quarterly Heritage Meetings:

- Woodside convenes a quarterly meeting of Traditional Custodian representatives from the Representative Aboriginal Corporations involved in historical native title claims over the Burrup Peninsula, including WAC. Individual attendees are nominated by their representative Aboriginal Corporations. These meetings are summarised separately in this table.
- Copies of slides are made available to representative Aboriginal Corporations for the general awareness of members who were not able to attend individual meetings.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
(1) During face-to-face engagements related to this activity and others, the WAC requested further information on topics related to this proposed activity which was responded to during the meeting: - Emergency preparedness - The relevance of the EMBA to consultation	(1) Woodside responded to WAC's requests for further information during face-to-face engagements, and no further information was requested on these topics. (2) Woodside noted WAC's interest in whales.	 (1) Existing controls considered sufficient, as described in Section 6. (2) Woodside updated Section 4.9.1.6 to record WAC's interests, including whales and assessed potential impact on these, including controls, in section 6.1.

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- Whether activities stop during whale migration.
- Potential impact of noise on whale communication.
- Whether a diesel spill would only be on the surface.
- How long diesel stays in the environment.
- What happens if something is dropped into the ocean.
- How soon is a spill responded to.
- Whether the turtle monitoring program is still in place.
- How many wells will be drilled for Scarborough.
- How the EMBA influences consultation.
- (2) WAC expressed a general interest in whales. Woodside discussed controls protecting whales from an ecological perspective during meetings in which they were raised, no further feedback or comment was received on these topics.
- (3) WAC expressed that it does not object to Woodside progressing Scarborough Project EPs (including this activity) on the proviso that Woodside and WAC enter into a framework agreement to provide for ongoing meaningful consultation a desire for ongoing engagement and partnership through a Framework Agreement.

- (3) Separate from consultation under Reg 11A, Woodside will establish a framework agreement with WAC. The agreement would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, a face-toface meeting with appropriate material (pictures, maps, video) and project attendance allowing opportunity to ask questions and seek further understanding.
 - Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1).
- 3) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans referenced as **PS 4.9.1** in this EP. This includes continued engagement regarding WAC's proposed Framework Agreement which will be applied to ongoing consultation. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix J.

Yinggarda Aboriginal Corporation (YAC)

YAC is established under the Native Title Act 1993 by the Yinggarda people to represent the Yinggarda people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with YAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

Sufficient Information:

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- Woodside Sought direction on YAC's preferred method of consultation. This resulted in face-to-face meetings being coordinated at the location of YAC's choosing, with YAC nominated representatives. These meetings included information that was readily accessible and appropriate.
- Provided Consultation Information Sheets and Consultation Summary Sheets to YAC.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's guidelines and brochure on consultation.
- Provided response to questions asked about the activity through consultation.
- Advised that YAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4))
- Reasonable Period:
 - Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
 - Consultation information provided to YAC on 20 January 2023 based on their function, interest, and activities.
 - Woodside has addressed and responded to YAC over 7 months, demonstrating a "reasonable period" of consultation.

Woodside asked YAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since February 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. YAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on YAC's functions, interests or activities.

Summary of information provided and record of consultation:

YMAC is the Native Title Representative Body (NTRB) for the Yamatji and Pilbara region which included YAC. NTRBs exist to provide assistance to native title claimants and holders in regard to their native title rights. No native title has been recognised over the Project Area, however YMAC is identified in the North-west Marine Parks Network Management Plan as the contact for identifying cultural values in nearby Australian Marine Parks.

- On 7 July 2022, Woodside met with YMAC to request advice on the appropriate cultural authorities for the Scarborough project area, including but not limited to the scope of this EP and nearby marine parks.
 - Woodside described the Scarborough Project and its footprint and gave an overview of indigenous parties consulted.

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- Woodside noted that YMAC was identified in the North-West Marine Parks Network Management Plan as the contact for identifying cultural values in nearby Australian Marine Parks. Woodside sought to understand if the cultural values of the nearby Gascoyne Marine Park may extend into the offshore Scarborough project areas.
- Woodside requested advice on how best (in addition to work completed) to identify any cultural values in the Marine Parks and in the broader project footprint.
- YMAC requested Woodside provide the relevant detailed information relating to the location and extent of the project.
- YMAC directed Woodside that consultation related to Scarborough Project would be best directed to Murujuga Aboriginal Corporation and Ngarluma Aboriginal Corporation
- YMAC did not direct Woodside to engage with YAC, however YAC was identified as a relevant person under methodology outlined in Section 5 and YMAC is listed as YAC's preferred contact on the ORIC website and is therefore Woodside's primary contact when engaging YAC.
- On 19 July 2022, YMAC responded to Woodside and stated the area Woodside has identified requires correspondence directed to Murujuga Aboriginal Corporation (MAC) and Ngarluma Aboriginal Corporation (NAC). No reference was made at that stage about consulting with YAC. YAC was identified through Woodside's own methodology.
- On 10 January 2023, Woodside emailed YAC/YMAC requesting to consult with YAC about work being planned for the Scarborough project, including a link to the NOPSEMA guidelines and advising that woodside would be sending further information on the project.
- On 20 January 2023 Woodside emailed YAC via the representative body Yamatji Marlpa Aboriginal Corporation (YMAC) advising of the proposed activity (Appendix F, Reference 1.33) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. The email requested information on the interests that YAC and its members may have within the EMBA, information on how YAC would like to engage, and requested that YAC provide information to members as required.
- On 22 January 2023 YAC/YMAC emailed Woodside to advise it would contact Woodside once the consultation material had been reviewed.
- On 22 February 2023, Woodside sent a follow up email on a range of Woodside Eps, including the proposed activity (Appendix F, Reference 1.66) and information sought. Woodside noted it is seeking YAC's feedback as soon as possible on the proposed activity. Woodside stated that it would be grateful to meet with YAC at the earliest convenience at location of YAC's preference, providing budget and resources.
- On 24 February 2023 Woodside followed up with YAC/YMAC via phone call. YAC/YMAC advised it would send an email on 24 February to discuss an invitation for Woodside to meet with YAC Board.
- On 17 March 2023, Woodside met with YAC's legal representatives to discuss consultation on the Scarborough Project, preferred method and locality of consultation meetings, and to note that they will assist groups with funding to hold meetings on an agreed basis.
- On 20 March 2023, Woodside emailed YMAC to follow up the discussed invitation for a face-to-face meeting with its Board of Directors and offered a phone discussion if YAC had any questions on the activities in the meantime.
- On 23 March 2023, YMAC responded and proposed a meeting on 3 May 2023 in Carnarvon and provided an estimated of its proposed costs. The invitation was accepted, and arrangements made for a pre-meeting with YMAC to coordinate details.
- On 23 March 2023, Woodside emailed YAC via YMAC to confirm a preference for a face-to-face meeting and request a budget proposal.
- On 24 March 2023, the YMAC lawyer emailed to arrange a pre-meet conversation on 31 April 2023.
- On 24 March 2023, Woodside emailed to confirm the pre-meet conversation.
- On 27 March 2023, the YMAC lawyer emailed Woodside to confirm meeting details.

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- On 30 March, the YMAC lawyer emailed to cancel the pre-meet conversation.
- On 18 April 2023, Woodside emailed YMAC/YAC following up with information offered at the meeting of 17 March 2023; management of emissions, organisations that may provide independent expertise and re-iterating they would like to meet with YAC.
- On 27 April, Woodside emailed the YMAC lawyer to confirm timing and location for the face-to-face meeting on 3 May, but the email bounced back requesting correspondence be forwarded to an alternate contact in YMAC.
- On 27 April, Woodside forwarded the email seeking to confirm time and location for the planned meeting to the alternate contact in YMAC.
- On 27 April, YMAC confirmed by email and phone call that they no longer represented Yinggara Aboriginal Corporation and that the meeting on 3 May 2023 had been cancelled. They informed Woodside that Gumala Aboriginal Corporation was now representing YAC and YMAC was in the process of hand over, including correspondence with Woodside.
- On 27 April, Woodside acknowledged YMAC email re Gumala Aboriginal Corporation transition to new service provider.
- On 28 April, Woodside attempted to call Gumula Aboriginal Corporation and left a voicemail to establish connection, no response was received.
- On 28 April, Woodside emailed Gumula Aboriginal Corporation to establish contact and inform them of the prior context. Woodside stated that it was still interested in meeting with the YAC board if they were interested, no response was received.
- On 8 May, Woodside phoned Gumula Aboriginal Corporation to follow up the email, explaining that it is seeking to consult Yinggarda on the proposed activity and noted
 that a planned meeting had been cancelled. Gumula Aboriginal Corporation indicated that the email address previously contacted was correct and indicated that it
 would call back. No return call was received.
- On 1 June 2023, Woodside emailed and phoned Gumala Aboriginal Corporation to speak with someone about consulting YAC on Eps. Reception said they would have a member of the governance team call back.
- On 15 June 2023, Gumula Aboriginal Corporation emailed Woodside proposing attendance at a YAC Board meeting on 6 July for one hour to discuss Eps.
- On 19 June 2023, Woodside emailed Gumala Aboriginal Corporation accepting the invitation to attend the Board meeting, requesting a half day meeting with the board to allow YAC to ask questions and have time to consider information.
- On 21 June 2023, Gumala Aboriginal Corporation emailed Woodside inviting attendance at a half day Board meeting to discuss other EP matters.
- On 21 June 2023, Woodside emailed Gumala Aboriginal Corporation accepting the invite to attend the Board meeting of 5 July 2023 for a half day.
- (1) On 5 July 2023, Woodside presented to the YAC about several EPs including this EP. At the meeting Woodside:
 - Described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Provided an overview of the broader Scarborough Project and overview of activities.
 - Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline
 Installation and Subsea Infrastructure Installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of a
 video showing the general process of drilling and completions which was designed for public audience.
 - Described the types of vessels involved.

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- Described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
- Displayed and spoke to the EMBA for each proposed Scarborough activity, and the individual worst-case loss of containment scenarios identified, noting that they are all diesel fuel releases which would only be caused by vessel collisions.
- Stated that Woodside wanted to understand how the functions, activities or interests of YAC and the people it represents may be impacted by any of those activities.
- Specifically asked the following:
 - How could these activities impact your cultural values, interests, and activities does protecting the environment do enough to protect your cultural values?
 - What are your concerns about the proposed activities and what do you think we should do about them?
 - Is there anything you would like included in the Eps before submission?
 - Is there anyone else Woodside should consult with about the activities?
- Advised that Woodside would continue to take feedback from YAC for the life of the EP.
- Provided personal contact details for further feedback. Woodside provided NOPSEMA contact details, should YAC desire to provide feedback directly to the regulator.
- (1) At the 5 July meeting YAC made mention of the following:
 - (1) YAC expressed sadness at the potential for environmental impact.
 - Response: Woodside explained that the potential impact from the unplanned activities is very low. For example, Woodside has been operating in the region for over 30 years and has not had a serious unplanned environmental event in that time. Importantly, if there is an unplanned event, the entire EMBA as shown on the maps will not be impacted. The area of the EMBA will be somewhere within the mapped area depending on factors such as wind, current and tide.
 - (1) YAC stated plants, animals and the environment are inexorably linked to their culture and asked: whether Woodside has undertaken environmental studies and whether these studies ongoing; and what environmental monitoring happens after the EPs are approved.
 - Response: Woodside has undertaken numerous environmental studies that form part of the EPs and has an ongoing commitment to environmental studies and research, some of which are set out on Woodside's website.
 - Environmental monitoring is an ongoing activity, and the nature and timing of environmental monitoring depends on the nature, possible consequences, and
 likelihood of the environmental risks. Importantly, Woodside commits to ongoing consultation with YAC and will be able to take feedback if any new information
 in relation to risks comes to light.
 - (1) YAC suggested that ranger programs could assist with environmental management and monitoring, and that YAC would likely write to Woodside about this suggestion and generally to discuss how YAC can be involved with / benefit from Woodside's activities.
 - Response: Woodside looks forward to discussing these opportunities with YAC further as part of our ongoing engagement. Woodside commits to ongoing consultation about the EPs and to building the relationship with YAC.
 - (1) (2) YAC expressed concern about potential impacts to potential impact patterns of whales, and potential collisions. Woodside responded by explaining controls which would be in place to minimise impacts and risks to whales, and no further information was requested.
- On 17 July, Woodside emailed YAC a letter summarising the 5 July meeting.
- On 19 July 2023, Woodside emailed YAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information.
 This email also reiterated Woodside's request that YAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 19 July 2023, YAC emailed Woodside acknowledging receipt of Woodside's email of 19 July.

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- On 26 July 2023, Woodside emailed YAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 2 August 2023, YAC lawyer emailed Woodside to indicate that they had been placed on a retainer by YAC to advise on NOPSEMA matters.
- On 3 August 2023, Woodside emailed YAC regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether YAC is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 4 August, YAC emailed Woodside noting that:
 - YAC are willing to formally engage with Woodside on future NOPSEMA consultation.
 - (3) Woodside was invited to submit a consultation agreement for YAC's consideration and to layout out desired content within the agreement.
 - Resourcing would need to be provided by Woodside to facilitate the consultation.
- On 9 August 2023, Woodside emailed YAC again seeking feedback and information relating to the accepted Scarborough EP with the same EMBA, stating the
 conditions of acceptance:
 - if YAC was aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
 - if there was any information YAC wished to provide on cultural features and/or heritage values

 The email noted the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement. The email described the purpose of consultation.
- On 10 August 2023, YAC emailed Woodside, noting that:
 - Woodside had provided a considerable volume of videos, complex materials, and presentations to the YAC board since 1 July 2023, covering multiple proposed activities. The YAC board is seeking advice about different documents and considering cultural and spiritual impacts of proposed activities.
 - The YAC board has not yet concluded its investigations and provide feedback, and if Woodside has advanced plans with NOPSEMA it has different view of the role and capacity of TOs in the process as clarified by Santos v Tipakalippa.
 - Requesting appropriate resources and time for YAC board to allow them to form a considered view, as requested on 4 August.
 - YAC board intends to raise matters at a community meeting in Carnarvon in September, including Aboriginal community members who are not YAC members.
- On 11 August 2023, YAC emailed Woodside confirming formal resolution by the Board to retain their lawyer (Banks-Smith & Assoc (BSA)) to engage on NOPSEMA
 matters and providing a copy of the Board Resolution.
- On 11 August 2023, Woodside emailed YAC via BSA acknowledging the request for a draft consultation agreement, noting it would be attended to within a week or so and confirming the process for onboarding to receive payments.
- On 14 August 2023, YAC via BSA emailed Woodside stating that it looked forward to receiving the consultation agreement for consideration and agreeing arrangements for provision of resourcing.
- On 13 September 2023, YAC via BSA responded to Woodside advising that in the absence of a draft consultation agreement they were unable to respond in substance
 to the matters raised.

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- On 14 September 2023, Woodside emailed YAC via BSA advising of the planned start date for the activity, and once again requesting if YAC is aware of any other people with whom Woodside should consult, and if there was any information YAC wish to provide on cultural values. The email requested this information prior to 28 September 2023, but reiterated that Woodside would take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.66.1). No response was received to this email.
- (3) On 14 September 2023, Woodside emailed YAC via BSA with a proposed consultation framework.
 - (3) On 14 September 2023, YAC via BSA confirmed receipt of the consultation framework and advised they would seek direction from the YAC board.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
During face-to-face engagements related to this activity and others YAC requested further information on topics related to this proposed activity which was responded to during the meeting: Whether Woodside has undertaken environmental studies and whether these studies are ongoing.	 (1) Woodside responded to YAC's requests for further information during face-to-face engagements, and no further information was requested on these topics. (2) Woodside noted YAC's interest in whales. 	 (1) Existing controls considered sufficient, as described in Section 6. (2) Woodside updated Section 4.9.1.6 to record WAC's interests, including whales and assessed potential impact on these, including controls, in section 6.1.
YAC also expressed the following: - Sadness at the potential for environmental impact - Ranger programs could assist with environmental management and monitoring. - Expressed concern about potential impacts to potential impact patterns of whales, and potential collisions (2) YAC expressed a general interest in whales.	(3) Separate from consultation under Reg 11A, Woodside will establish a framework agreement with YAC. The agreement would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, a face-to-face meeting with appropriate material (pictures, maps, video) and project attendance allowing opportunity to ask questions and seek further understanding.	(3) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans, referenced as PS 4.9.1 in this EP. This includes the proposed Framework Agreement which will be applied to ongoing consultation. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix J.
Woodside discussed controls protecting whales from an ecological perspective during meetings in which they were raised, no further feedback or comment was received on these topics	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management	

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(3) Woodside has provided a draft	Consultation	of Change and Revision process (see Section	
Framework Agreement which i	ncludes suggested	7.8.1).	
timeframes to settle the agreer			
timeframes for ongoing consult	ation with the		
Board.			

Yindjibarndi Aboriginal Corporation

YAC is established under the Native Title Act 1993 by the Yindjibanrdi people to represent the Yindjibanrdi people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Yindjibarndi for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Sufficient Information:
 - Provided Consultation Information Sheet and Consultation Summary Sheets to Yindjibarndi
 - Articulated planned and unplanned environmental risks and impacts, with proposed controls.
 - Set out in detail what was being sought through consultation.
- Reasonable Period:
- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Yindjibarndi on 20 January 2023 based on their function, interest, and activities.
- Woodside has addressed and responded to Yindjibarndi over 7 months, demonstrating a "reasonable period" of consultation.

Woodside asked YAC it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on Yindjibarndi functions, interests, or activities. Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

Summary of information provided and record of consultation:

• On 20 January 2023, Woodside emailed Yindjibarndi advising of the proposed activity (Appendix F, Reference 1.34) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. The email requested information on the interests that Yindjibarndi and its members may have within the EMBA, information on how Yindjibarndi would like to engage, and requested that Yindjibarndi provide information to members as required.

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- On 24 February 2023, Woodside sent a follow up email on a range of Woodside EPs, including the proposed activity (Appendix F, Reference 1.83) and information sought.
- (1) & (2) On 26 February 2023, Yindjibarndi emailed Woodside. Yindjibarndi advised that it will not be providing any comment on the proposed activity, or broader Scarborough Project and noted it respected the traditional owners whose land and sea lies adjacent to, and within the precinct of, the projects, and will leave any comment and advice to be provided by them.
- On 28 February 2023, Woodside emailed Yindjibarndi to thank them and noted the response.
- On 7 July 2023, Woodside called Yindjibarndi who reiterated that it would prefer that comments come from coastal Aboriginal Corporations and not themselves.
- On 18 July 2023, Woodside emailed Yindjibarndi NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted
 Information. This email also reiterated Woodside's request that Yindjibarndi advise Woodside of any other Traditional Custodian groups or individuals with whom
 Woodside should consult. No response was received to this email.
- On 26 July 2023, Woodside emailed Yindjibarndi Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- (3) On 1 August 2023, Yindjibarndi emailed Woodside in response to the Program of Ongoing Engagement from Woodside and asking that Oil and Gas matters relating to Yindjibarndi be directed to NYFL.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
 Yindjibarndi has provided a response and advised that it will not be providing any comment on the proposed activity. Yinjibarndi expressed that they would prefer that traditional owner groups with land and sea adjacent to and within the precinct of the projects provide comment. Yindjibarndi has instructed Woodside that it will be represented by NYFL in ongoing discussion about EP's. 	 (1) Woodside accepts Yindjibarndi's response. (2) Woodside agrees and respects Yinjibarndi's position that traditional owners whose land and sea are adjacent to or within the precinct of the projects should be able to provide comment. (3) Woodside will engage with NYFL on behalf of Yindjibarndi for ongoing consultation related to this activity, separate from consultation under Reg 11A. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7). 	 (1) Not required. (2) Not required. (3) Future correspondence will be sent through NYFL. Woodside has implemented a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values, referenced as PS 4.9.1 in this EP.

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Buurabalayji Thalanyji Aboriginal Corporation (BTAC)

BTAC is established under the Native Title Act 1993 by the Thalanjyi people to represent the Thalanjyi people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has consulted under Regulation 11A with BTAC by providing sufficient information, a reasonable period of time and opportunity for BTAC to make an informed assessment of the possible consequences of the activities on functions, interests or activities. Woodside has addressed each objection or claim made by BTAC. Woodside has included cultural values and controls relevant to Woodside's understanding of BTAC's functions, interests and activities in its environment plan and in response to topics raised during consultation by BTAC.

As demonstrated in the summary below and consultation record that follows, consultation with BTAC complies with Regulation 11A and is complete.

Summary

Sufficient Information:

- Woodside sought direction on BTAC's preferred method of consultation. This has not resulted in a face-to-face meeting with the Board, however, BTAC has exchanged
 multiple correspondence on the activity and telephone engagements with BTAC representatives. Woodside has offered to coordinate meetings at the location of
 BTAC's choosing, with BTAC nominated representatives. As sufficient information and a reasonable period have been provided (see below), any meetings would be
 considered as ongoing engagement post regulation 11A consultation.
- Provided Consultation Information Sheets and Consultation Summary Sheets developed by Indigenous staff to BTAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity with controls in a digestible, plain English format.
- Confirmed the purpose of consultation and set out in detail what was being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and interested individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan"
- Provided response to questions asked about the activity through consultation. Through these questions, BTAC have displayed an understanding of the activities under this Environment Plan as well as the broader Scarborough Project.

Reasonable Period:

- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside commenced consultation with BTAC in January 2023. Woodside has since addressed and responded to BTAC queries over 9 months, demonstrating a "reasonable period" of consultation.

Woodside advised that BTAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4))

Woodside asked BTAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

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Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via discussions and written exchanges to further understand the environment in which the activity will take place. BTAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on BTAC's functions, interests or activities.

Summary of information provided and record of consultation:

Historical Engagement

- Prior to sending out the Consultation Information Sheets, Woodside spoke to BTAC on 4 January 2023 to discuss the best way forward to consult with BTAC. On 10 January 2023, Woodside emailed BTAC stating it would be very grateful for the opportunity to meet with BTAC in the second half of February as discussed, or sooner if possible. Woodside also offered to cover the reasonable costs of consultations. Specifically, in relation to this EP, Woodside stated they would like to discuss:
 - BTAC's expectations for consultation how can Woodside and BTAC best work together.
 - BTAC's aspirations and plans how can Woodside support BTAC regarding potential employment and contracting opportunities.
 - Environmental planning consultations about Woodside's Scarborough Project with gas fields planned to be located offshore, approximately 380km northwest of Karratha.

In addition:

- Woodside advised it would like to and is required to consult with BTAC about the nature of any interests BTAC have in the "environment that may be affected" (EMBA) by this work, and any concerns BTAC may have about potential environmental impacts, so these concerns can be addressed through the environmental planning and approvals process.
- Woodside provided further information about government guidelines for these consultations and provided a link to https://consultation.nopsema.gov.au/environment-division/consultation-guideline/.
- Woodside advised it would reach out in the next week with consultation information sheets.
- Woodside stated in the 10 January 2023 email that it would like to arrange a meeting between senior Woodside staff and BTAC's Board if BTAC felt that was appropriate and it would await guidance from BTAC.

Ensuring Sufficient Information and Sufficient Time

- On 20 January 2023, Woodside emailed BTAC advising of the proposed activity (Appendix F, Reference 1.36) and provided a simplified Consultation Information Sheet
 (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. The email requested information on the interests
 that BTAC and its members may have within the EMBA, information on how BTAC would like to engage, and requested that BTAC provide information to members as
 required.
- On 23 January 2023, Woodside emailed BTAC with the consultation information noting it had previously sent an email to an incorrect email address (Appendix F, Reference 1.37).

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- On 24 January 2023, BTAC emailed Woodside acknowledging it had received the information.
- On 27 January 2023, Woodside placed a phone call and as there was no answer, left a voice message and emailed BTAC to follow up on the information provided (Appendix F, Reference 1.46 and 1.47).
- On 27 January 2023, BTAC emailed Woodside to acknowledge receipt of information and said they would be meeting within the week and would be in contact following their meeting.
- On 9 February 2023, Woodside emailed BTAC following up on correspondence and asking whether BTAC required any support or had feedback to provide.
- On 13 February 2023, BTAC representative called and spoke to Woodside asking what Woodside was proposing for next steps for consultation and whether Woodside would like to meet with the BTAC Board, the Council of Thalanyji Elders or present at a common law meeting. Woodside said they would be guided by BTAC, but suggested meeting initially with the BTAC Board. Following a suggestion by BTAC that the group may benefit from an anthropologist to articulate sea country values, Woodside said they would look at those sorts of requests on a case-by-case basis. Woodside also confirmed they are able to financially support consultation meetings. A BTAC representative said he would discuss Woodside EPs with BTAC and aim to respond by 20 February 2023.
- On 20 February 2023, BTAC provided a letter to Woodside in relation to consultation on the broader Scarborough activities, including this proposed activity:
 - BTAC referred to the advertisements placed by Woodside regarding the proposed activity which sought feedback from persons or organisations who may hold interests in the EMBA by the activities.
 - (1) (2) BTAC confirmed that BTAC on behalf of Thalanyji people has interests and that the Thalanyji people have an enduring deep connection to sea country north of Onslow, extending out to islands off the Pilbara coast such as the Monte Bello islands, Barrow Island and the Mackerel Islands.
 - BTAC advised it was seeking the opportunity to engage with Woodside and NOPSEMA on the activity.
 - (5) BTAC advised it has not specifically developed values regarding Sea Country into a format that could be articulated for consultation and seeks support from Woodside to enable BTAC to define and articulate its values on Sea Country in a manner that could be more clearly understood by the offshore sector, government, and the community. This would enable BTAC and Woodside to collaborate to develop effective management plans that can provide adequate protection to sea country values.
 - (3) BTAC advised the information in the consultation fact sheets is very general. BTAC seeks support from Woodside to obtain technical support to review the information and provide BTAC and its members with feedback on the project risks to Sea Country and help BTAC contemplate the potential management controls that could be developed to protects its values and interests.
 - **(4)** BTAC requested that emergency response capability is developed and locally provided to be able to respond to potential activities/actions that may cause an impact in the EMBA. BTAC encouraged Woodside and industry to build capacity and capability in BTAC's ranger program so that it could participate in response planning and management activities.
 - **(6)** BTAC noted that ongoing consultation with BTAC will be imperative and likely continuous given recent changes to consultation requirements and this will continue to be a burden on the organisation. BTAC requested that Woodside enter a consultation or engagement framework to ensure BTAC can be properly resourced financially and intellectually to participate in the consultation and management planning processes for the activities.
- On 22 February 2023, Woodside emailed BTAC:
 - Woodside thanked BTAC for its 20 February 2023 correspondence regarding consultations about the Scarborough project.

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- Woodside advised it will respond to this correspondence in the coming days and would be most grateful for the opportunity to meet with BTAC to discuss the matters raised in its letter and Woodside's relationship more broadly.
- On 13 March 2023, BTAC emailed Woodside guerying whether there was a revised submission date in relation to recently notified projects, noting that BTAC were awaiting feedback on their initial submission (20 February 2023 correspondence).
- On 13 March 2023, Woodside contacted BTAC via phone to discuss the correspondence of 20 February 2023.
- On 17 March 2023, Woodside emailed a letter to BTAC:
 - Woodside thanked BTAC for its feedback and said it looked forward to working with BTAC.
 - Woodside advised it acknowledges and respects that BTAC on behalf of the Thalanyji People (Thalanyji) has interests in the EMBA by the Scarborough Activities and wants to ensure these values and interests are protected.
 - Woodside advised it also acknowledges that through BTAC's correspondence, BTAC has proposed several important risk mitigation and management measures. Woodside agreed that the principles BTAC have outlined are important. To paraphrase, these principles are that:
 - Woodside and BTAC work in a structured way and on an ongoing basis to learn about, articulate and understand each other's values, aspirations, and work, particularly to ensure BTAC understands how Woodside's activities may impact on Thalanvii values and interests.
 - (2) Arising from this consultation. Woodside and BTAC will continue to identify environmental risks and design and implement monitoring and management responses to these risks on an ongoing basis. This includes building on Woodside's knowledge base to understand Thalanyii values and interests. Woodside understands this work will also improve BTAC's capability and capacity to identify risks and address monitoring and management arrangements, including through BTAC's ranger program.
 - BTAC has requested that Woodside provides BTAC with the resources that are necessary to undertake this work, including through the provision of information and Woodside personnel to provide briefings, and independent expert anthropological and environmental management advice to BTAC.
 - (3) Woodside advised that in response to the provision of independent expert environmental management advice to BTAC. Woodside would be pleased to provide the resources necessary for BTAC to obtain and retain this advice on the basis that such advice is provided by an experienced and reputable oil and gas environmental management expert who is independent of Woodside, and who has the capacity to undertake this work to meet consultation schedules.

Woodside suggested a range of organisations for BTAC's consideration who are not working for Woodside.

(5) Woodside also advised it would also be pleased to support BTAC to acquire anthropological advice.

Woodside advised that it respects that BTAC has assessed the likelihood of unplanned events and impacts as possible. Woodside has assessed the likelihood of a major unplanned hydrocarbon release event as highly unlikely. By way of example the Scarborough Activities EMBA's are premised on an unmitigated diesel spill arising from the collision of large vessels, the piercing of fuel tank(s) from that collision causing all the fuel tank to leak out, and no control measures being enacted. Woodside has been operating for over 35 years and has never caused an unplanned event like this; however, Woodside must plan for and consult about such events. Woodside advised that Woodside's target is to ship the first cargo of LNG from the Scarborough project in 2026, and to enable:

- Drilling and completions work is planned to occur anytime within a five-year window commencing in the second half of 2023, pending approvals.
- Seabed installation and trunkline installation activities in Commonwealth waters are expected to commence in around late 2023, pending approvals.

Links to relevant consultation information sheets to the above activities were also provided to BTAC for the second time (first sent on 23 January).

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Woodside noted that considering the above schedule, there is time for BTAC and Woodside to work together in the short, medium, and longer term to identify, develop and refine management responses to environmental risk.

Woodside advised that with reference to the timeframes as described above, environmental protection and management associated with these activities is subject to an adaptive management approach. This means that consultation between Woodside and BTAC about environmental risk and management responses is ongoing, and changes can be made to improve environmental protection and management practices over time, including in the associated Environment Plans (EPs). Woodside proposed the following next steps:

- Woodside will formalise the matters outlined in correspondence between Woodside and BTAC by including in each of the Environment Plans statements along the following lines:
- BTAC for and on behalf of Thalanyji has interests and values in the EMBAs and is concerned about the possible impact on these interests and values, including to Sea Country, arising from Woodside's proposed activities.
- BTAC, with support from Woodside and through the provision of independent expertise, will on an ongoing basis:
 - (5) convey to Woodside the nature of Thalanyji interests and values, noting that BTAC would like to conduct work to articulate those values in a manner that Woodside understands.
 - provide information to Woodside about how those interests and values intersect with the EMBAs and how that should be managed.
- **(4)** Woodside will engage in ongoing consultation with BTAC for the purposes of ongoing monitoring, management and emergency response associated with environmental risk.
- Woodside and BTAC will work under an adaptive management approach as the understanding of each other's values and interests, activities, needs, and aspirations grow during ongoing consultation. This means that Woodside's Environment Plans may be updated from time to time so they accurately reflect environmental risk as they relate to BTAC's interests and values, and the management measures that Woodside and BTAC will put in place to avoid and otherwise mitigate and manage environmental risk.
- BTAC can at any time can make direct representations to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) about the nature of BTAC's interests and how they may be affected by Woodside's activities.
- Woodside proposed if BTAC considers it appropriate, that the principles discussed in its correspondence (this 17 March 2023 letter and BTAC's correspondence of 20 February 2023) apply to the various decommissioning and drilling EPs that Woodside has notified BTAC about. This will ensure these arrangements are formalised into regulatory processes and documentation. As per Woodside's ongoing consultation approach, feedback continues to be assessed through the life of the EPs.
- Woodside advised BTAC that its letter of 20 February 2023 and this response will be included in the EP. Woodside requested that if their feedback is sensitive,
 please inform Woodside, and it will make this known to NOPSEMA upon submission of the Environment Plans to ensure this information remains confidential to
 NOPSEMA.
- On 30 March 2023, Woodside spoke with BTAC to follow up on correspondence described above. BTAC indicated that they desired a consultation agreement and
 intended to provide correspondence accordingly.
- (1& 2) On 17 April 2023, Woodside spoke with BTAC by telephone. The BTAC representative stated that they were aware that there were archaeological sites identified on nearshore islands and a cultural obligation to care for the environmental values of sea country. The BTAC representative stated there was in principle agreement to submission of current EPs while continuing to negotiate the collaboration agreement for support for rangers and support for recording of cultural values.

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- On 18 April 2023, BTAC emailed a response regarding Woodside's Scarborough activities.
- (6) BTAC agreed that subject to formalising arrangements, BTAC agrees in principle for Woodside to include the statements described in their letter dated 17 March.
- (6) BTAC proposed that a Collaboration Agreement would be an appropriate mechanism to provide ongoing feedback to Woodside regarding its activities.
- BTAC invited Woodside to a board meeting to discuss Scarborough activities and other short-, medium- and longer-term activities, discuss BTAC's strategic plan and details of a collaboration agreement.
- On 19 April, Woodside emailed to accept an invitation from BTAC to attend their forthcoming board meeting and requesting half a day of the board's time, preferably before the first week of May.
- On 28 April 2023, Woodside emailed BTAC to follow up in relation to BTAC's proposed collaboration agreement and confirmed Woodside's intention to submit this EP on the understanding that BTAC is agreeable to this course of action, on the basis that we will progress the collaboration agreement. Woodside asked BTAC to identify if it had misinterpreted BTAC's position.
- On 4 May 2023, Woodside called BTAC. It was discussed that:
 - Woodside would be sending BTAC more EPs (for other activities) for consultation.
 - (6) Woodside is working on draft key terms/principles for the collaboration agreement for BTAC's consideration.
 - A meeting between Woodside and the BTAC board may be possible in June.
 - Woodside intended to submit the Scarborough EPs (including this proposed activity) soon.
- On 4 May 2023, BTAC emailed Woodside to continue discussion regarding a potential future meeting between Woodside and the BTAC board to discuss activities on Thalanyji Country, activities for which BTAC's ongoing consultation is sought, the collaboration agreement and other items not related to this proposed activity.
- On 19 May 2023, BTAC emailed Woodside requesting that all activities including this activity be included in proposed presentations.
- (6) On 14 June 2023, Woodside emailed BTAC attaching a letter setting out a draft framework for ongoing consultation which includes recording of sea country values, commitments to regular three-monthly meetings, support for BTAC's capacity to engage, a set of milestones for agreeing the framework and commencement of implementation.
- On 19 June 2023, BTAC emailed Woodside acknowledging information and confirming interests as set out in correspondence about Scarborough activities.
- On the 6 July 2023, Woodside attempted to make contact via phone call, but BTAC did not answer.
- On the 7 July 2023, Woodside attempted to make contact via phone call, but BTAC did not answer.
- On the 10 July 2023, Woodside followed a phone call with BTAC with an email to seek further confirmation that BTAC did not object to Woodside's submission of a number Environmental Plans (including this one) that it is planning to submit to NOPSEMA. Woodside outlined a series of commitments to BTAC to ensure ongoing consultation and a positive working relationship continues.
- On 19 July 2023, Woodside emailed BTAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that BTAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. No response was received to this email.

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- On 19 July 2023, Woodside emailed BTAC seeking a time to continue discussion regarding a draft presentation to meeting between Woodside and the BTAC Board about activities on Thalanyji country including other items not related to this proposed activity, and the collaboration principles.
- On 19 July 2023, BTAC emailed Woodside to organise a time for the discussion.
- On 20 July 2023, Woodside emailed BTAC a draft presentation for discussion.
- On 21 July, Woodside emailed BTAC a Teams meeting invite for 28 July 2023.
- On 21 July, BTAC accepted the meeting invite.
- On 26 July 2023, Woodside emailed BTAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 26 July 2023, Woodside emailed BTAC confirming the planned meeting for 28 July 2023, a presentation regarding consultation, and re-sent the draft presentation sent on 20 July 2023.
- On 28 July 2023, BTAC emailed Woodside with outcomes of the meeting, confirming Woodside had set aside funding for engagement, Woodside wish to meet with BTAC board (or sub-committee) as soon as available to discuss offshore activities/EPs. Woodside will prepare a draft framework agreement to address consultations in relation to NOPSEMA matters.
- On 31 July 2023, Woodside emailed BTAC noting that Woodside would be open to funding a special meeting with the board or sub-committee and requesting a cost estimate for such a meeting.
- On 31 July 2023, Woodside emailed 3 letters to BTAC, 1 of those letters related to the issue of a s91 license for an unrelated activity. The 2nd letter outlined support for an ethnographic assessment to:
 - (2) Identify sea country values generally sufficient to inform all Woodside EP's.
 - Any work necessary to clarify or define the offshore areas that are relevant to the Thalanyji People.
 - The delivery of interim reports if this will enable prioritising matters considered most critical by BTAC.
 - Woodside will be responsible for all reasonable costs to complete the assessment.
 - Confirm BTAC retains intellectual property.

The 3rd letter related to a separate Scarborough activity which re-iterated Woodside's commitment to supporting BTAC to define and articulate Sea Country values requesting any advice to assist to clarify areas of interests Thalanyji have.

To date, BTAC has not indicated that it desires to initiate the ethnographic assessment

- On 3 August 2023, Woodside emailed BTAC regarding the acceptance of a different Scarborough EP with the same EMBA, and asking for information in accordance with conditions of acceptance of the EP, specifically whether BTAC is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform management of the activity. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 3 August 2023, Woodside emailed BTAC with a message similar to that of the previous 3 August email, but for a different EP.
- On 9 August 2023, Woodside emailed BTAC again seeking feedback and information relating to the different Scarborough EP with the same EMBA, stating the conditions
 of acceptance of the EP:

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- if BTAC was aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
- if there is any information they wished to provide on cultural features and/or heritage values
- the email gave the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement.
- the email also described the purpose of consultation.
- On 11 August 2023, BTAC emailed Woodside notifying that a response could be expected by the end of the week.
- On 15 August 2023, Woodside emailed BTAC following up on correspondence provided on 31 July 2023, requesting to meet and discuss matters with BTAC.
- On 22 August 2023, BTAC emailed Woodside acknowledging correspondence and noting they would come back with a time to meet and progress matters, within the following weeks.
- On 23 August 2023, Woodside emailed BTAC requesting to meet for an initial discussion to layout the various matters that have been under discussion, including BTAC's capacity and priority areas previously identified by BTAC.
- On 14 September 2023, Woodside emailed BTAC advising of the planned start date for the activity, and once again requesting if BTAC is aware of any other people with whom Woodside should consult, and if there is any information BTAC wish to provide on cultural values. The email requested this information prior to 28 September 2023, but reiterated that Woodside will take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, Reference 1.47.1). The email included links to NOPSEMA brochures on consultation, and described the purpose of consultation
- On 14 September 2023, BTAC emailed a letter to Woodside regarding a framework agreement with BTAC. The intent of the agreement would be to formalise a coordinated, streamlined approach to progressing meaningful ongoing engagement and consultation. The letter included areas the agreed framework could address, and confirmed that the agreed framework would allow BTAC to meaningfully comment on a range of issues including:
 - How/whether EP activities could impact cultural values, interests and customary or organisational activities and concerns and useful ways these could be addressed.
 - The content of EPs prior to submission to NOPSEMA.
 - Appropriate ways for mitigating risk and ensuring ongoing social licence.
 - (7) A further letter was attached outlining a proposed cost recovery mechanism for consultation activities, and BTAC stated that it did not sanction or endorse any consultation occurring without cost recovery
- On 14 September 2023, BTAC emailed further to their previous email requesting a list of all known activities and EP's.
- On 14 September 2023, Woodside emailed BTAC acknowledging BTAC's email of 14 September and planning further review and discussion.
- On 20 September 2023, BTAC emailed Woodside requesting a response from Woodside about accepting the proposed costs acceptance letter which BTAC sent on 14 September 2023 and requesting a list of current and ongoing activities Woodside were seeking ongoing consultation for.
- On 20 September 2023, BTAC emailed Woodside further to their earlier email, requesting a response to BTAC's cost proposal, a list of Woodside activities for ongoing consultation and an update on the status of the framework agreement for BTAC's review.

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- **(6)** On 22 September 2023, Woodside emailed BTAC accepting BTAC's proposed consultation fee structure, the list of activities that Woodside has consulted BTAC on and advising that the draft framework agreement was under internal review.
- On 26 September BTAC emailed Woodside acknowledging EP information received, signed costs and acceptance letter and that a draft agreement was currently under internal Woodside review. The email confirmed BTAC will be assisted with legal advice from Banks-Smith & Associates (BSA).
- On 27 September 2023, BSA emailed Woodside clarifying that they are instructed by BTAC on this matter.

Summary of Feedback, Objection or Claim **Woodside Energy's Assessment of Merits of Environment Plan Controls** Feedback, Objection or Claim and its Response (1) BTAC stated that their interests include (1) The nearshore islands identified by BTAC do not (1) Not required (2) Woodside updated Section 4.9.1 to record BTAC's archaeological sites identified on nearshore fall within the EMBA and will not be impacted by islands including the Montebello Islands, Barrow any of the activities set out in the EP. interests and potential cultural values and assessed (2) Woodside assessed BTAC's cultural obligation to Island and the Montebello Islands. potential impact on these, including controls, in (2) BTAC has a cultural obligation to care for the care for environmental values of sea country to section 6.1 environmental values of sea country. represent potential cultural values. (3) Not required (3) Requested Woodside supports BTAC in obtaining (3) Woodside has offered financial support for (4) The Program for Ongoing Engagement with Traditional Custodians (Appendix J) includes technical advice relating to the proposed activity technical advice and other support that has not which was sent to BTAC. been taken up (eg 17 March 23 letter). commitments to social investment to support (4) Woodside will engage in ongoing consultation with (4) Expressed desire to be involved in local Indigenous Ranger programs, and support for BTAC for the purposes of ongoing monitoring, emergency response capability, potentially via an Indigenous oil spill response capabilities. Indigenous Ranger Program. management and emergency response associated Woodside has developed the Thalanvii Sea (5) BTAC has not specifically developed values with environmental risk (eg 17 March letter). Country Management process described in the EP regarding Sea Country into a format that could be (5) Woodside agreed to support the articulation and section 7.5 to develop a robust understanding of articulated for consultation. BTAC sought support recording of sea country values. Since Woodside Thalanyji Sea Country cultural values and heritage from Woodside to enable BTAC to define and formally offered to support BTAC undertake an features, in the absence of the ethnographic articulate its values on Sea Country in a manner ethnographic assessment in July 2023, BTAC has survey. Woodside has taken all reasonable steps that could be more clearly understood by the not indicated that it desires to initiate the activity. to identify cultural features and heritage features of offshore sector, government, and the community. Completion of an ethnographic assessment is not Thalanyji people within the EMBA. This is (6) BTAC proposed a Collaboration Agreement as an required to undertake or complete consultation described in sections 4.9. The proposed appropriate mechanism to provide ongoing under Reg 11A. Opportunity to undertake this Collaboration Agreement and PS 4.91 enables an feedback to Woodside regarding its activities work continues under the proposed Collaboration ethnographic survey to be undertaken at a later (7) BTAC does not endorse any consultation without date. Should feedback be received after the EP has Agreement (see 6) as part of ongoing appropriate cost recovery engagement.. Woodside has been able to develop been accepted (including any relevant new a robust understanding of Thalanyii Sea Country information on cultural values), it will be assessed cultural values and features in absence of this and, where appropriate, Woodside will apply its assessment. Management of Change and Revision process (see Section 7.8.1). PS 28.1.1 ensures that potential (6) Separate from consultation under Reg 11A.

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Woodside will establish a Collaboration

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Agreement with BTAC. The agreement would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including Consultation Information Sheets and a Summary Information Sheet developed by Indigenous staff members, and slide packs associated with offered face-to-face meetings.

Woodside and BTAC have agreed on a Costs Acceptance Letter. Woodside has developed a Framework Agreement for ongoing consultation which is under internal review and will be forwarded to BTAC for their consideration in October 2023. The agreement includes support for recording and articulation of Sea Country values.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1).

(7) Woodside assesses that the proposed Collaboration Agreement is an appropriate mechanism for addressing appropriate cost recovery for BTAC. Woodside has already offered BTAC support for technical advice (see 3), and informed BTAC that is would financially support consultation meetings (eg 13 Feb 23 discussion). As described in the summary above, Woodside has afforded sufficient information and reasonable time for BTAC to provide feedback in the course of preparing this EP.

- impacts to newly identified cultural values is managed to ALARP and Acceptable levels.
- (6) and (7) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values, referenced as PS 4.9.1 in this EP. This includes continued engagement regarding the Collaboration Agreement that Woodside seeks with BTAC, which could include support for BTAC to define and articulate values, provision of ongoing feedback and cost recovery. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix J.

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Robe River Kuruma Aboriginal Corporation (RRKAC)

RRKAC is established under the Native Title Act 1993 by the Robe River Kuruma people to represent the Robe River Kuruma people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with RRKAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Sufficient Information:
 - Woodside Sought direction on RRKAC's preferred method of consultation. This resulted in face-to-face meetings being coordinated at the location of RRKAC's choosing, with RRKAC nominated representatives. These meetings included information that was readily accessible and appropriate.
 - Provided Consultation Information Sheets and Consultation Summary Sheets to RRKAC.
 - Articulated planned and unplanned environmental risks and impacts, with proposed controls.
 - Set out in detail what was being sought through consultation.
 - Asked for the consultation and information sheets to be distributed to members and individuals.
 - Provided NOPSEMA's guidelines and brochure on consultation.
 - Provided response to questions asked about the activity through consultation.
 - Advised that RRKAC could request the particular information provided in the consultation not be published (to align with 11A(2)(4))
- Reasonable Period:
- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to RRKAC on 20 January 2023 based on their function, interest, and activities.
- Woodside has addressed and responded to RRKAC over 9 months, demonstrating a "reasonable period" of consultation.

Woodside asked RRKAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. RRKAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on RRKAC's functions, interests or activities.

Summary of information provided and record of consultation:

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- On 20 January 2023, Woodside emailed RRKAC advising of the proposed activity (Appendix F, Reference 1.35) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet. The email requested information on the interests that RRKAC and its members may have within the EMBA, information on how RRKAC would like to engage, and requested that RRKAC provide information to members as required.
- On 31 January 2023, Woodside held a discussion with RRKAC representative to discuss the proposed activity and ways forward for consultation:
 - RRKAC advised during the virtual meeting that the activity would need to be considered by their Heritage Advisory Committee scheduled for late February 2023.
- On 24 February 2023, Woodside emailed RRKAC to follow up on the information provided (Appendix F, Reference 1.84) and the proposed February 2023 meeting.
 Woodside noted it is seeking RRKAC's feedback as soon as possible on the proposed activity.
- On 9 March 2023, RRKAC emailed Woodside (and copied in CEO of Wirrawandi Aboriginal Corporation (WAC)):
 - RRKAC advised it has discussed the proposed activity with the Robe River Kuruma Heritage Advisory Committee and they have recommended that the interests of Robe River Kuruma people are best served through the joint Heritage Advisory Committee that is required under Yaburara Mardudhunera and Kuruma Marthudunera Indigenous Land Use Agreement.
 - RRKAC also suggested that WAC is required to facilitate this Committee and noted there is an emerging need to deal with other proponent matters, so there is an opportunity to link the engagement from a meeting efficiency perspective.
- Between 15-17 March 2023, Woodside exchanged email correspondence with RRKAC (and WAC) and in relation to establishing a meeting with the joint Heritage Advisory Committee. The meeting was confirmed for 31 March 2023.
- On 15 March 2023, Woodside emailed RRKAC to ask when date of joint HAC would occur and how Woodside can support it.
- On 15 March 2023, RRKAC emailed Woodside emailed regarding contacts for the proposed meeting.
- On 15 March 2023, Woodside emailed RRKAC to advise who from Woodside would lead the process.
- On 15 March 2023, RRKAC emailed Woodside to advise the joint HAC meeting was scheduled tentatively for 31 March 2023 but that this would depend on WAC's
 availability but that the RRKAC representatives are able to attend.
- (1) On 31 March 2023, Woodside met with the Robe River Kuruma and Wirrawandi Joint Heritage Advisory Committee (HAC) in Karratha:
 - Woodside described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Woodside encouraged HAC to raise anything which they feel is missing in the information provided during the meeting, or any issues or concerns.
 - Woodside displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Woodside provided an overview of the broader Scarborough Project and overview of activities.
 - Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline Installation and Subsea Infrastructure Installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of a video showing the general process of drilling and completions which was designed for public audience.
 - HAC asked several questions related to the broader Scarborough project.
 - Woodside described the proposed drilling activities.

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- HAC asked some general questions about drilling which were responded to in the meeting.
- Woodside described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
- The EMBA for each proposed Scarborough activity was displayed, and the individual worst-case loss of containment scenarios identified, noting that they are all diesel fuel releases which would only be caused by vessel collisions.
- HAC asked what response Woodside would implement for a diesel spill. Woodside responded that response arrangements are checked by NOPSEMA and since diesel rapidly evaporates and disperses response is mainly monitoring.
- Woodside noted this concluded the Scarborough section of the meeting and called for any further questions or feedback. None were received.
- Woodside provided personal contact details for further feedback.
- Woodside provided NOPSEMA contact details, should the HAC desire to provide feedback directly to the regulator.
- (2 & 3) On 3 May 2023, Woodside contacted RRKAC by mail to summarise the information presented at the meeting on 31 March 2023 and the actions for Woodside to follow up:
 - Woodside thanked the HAC for the meeting, their careful consideration of the matters and feedback provided.
 - Woodside acknowledged that the RRKAC have interests in the EMBA and noted that we want to ensure impacts are as minimal as reasonably practicable.
 - A high-level overview of presented topics was provided.
 - Woodside provided responses to questions noted from the meeting that were not related to the proposed activity.
 - Woodside notified that the feedback and the letter will be included in Environment Plans that will be submitted to NOPSEMA.
 - Woodside provided responses to questions noted from the meeting that were not related to the proposed activity.
 - Woodside notified that the feedback and the letter will be included in Environment Plans that will be submitted to NOPSEMA.
- On 19 July 2023, Woodside emailed RRKAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that RRKAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. No response was received to this email.
- (3) On 26 July 2023, Woodside emailed RRKAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 2 August 2023, Woodside emailed RRKAC regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether RRKAC is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 9 August 2023, Woodside emailed RRKAC again seeking feedback and information relating to the accepted Scarborough EP with the same EMBA, stating the conditions of acceptance of that EP:
 - if RRKAC were aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
 - if there is any information RRKAC wished wish to provide on cultural features and/or heritage values

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- the email gave the planned commencement of activity under that EP and stated that if no feedback had been received by COB on the day prior, it would be taken to mean no information was desired to be given prior to commencement.
- On 11 August 2023, RRKAC emailed Woodside in response to another matter and in addition requesting ongoing consultation and training opportunities for rangers to prepare rangers for caring for sea and coastal country.
- On 14 August 2023, Woodside emailed RRKAC thanking them for their response and requesting to meet to discuss training opportunities for rangers.
- On 14 August RRKAC emailed Woodside agreeing to a meeting and indicating they would arrange a suitable time for a discussion
- On 14 September 2023, Woodside emailed RRKAC acknowledging the previous email, advising of the planned start date for the activity, and once again requesting if RRKAC is aware of any other people with whom Woodside should consult, and whether there was any information RRKAC wish to provide on cultural values. The email requested this information prior to 28 September 2023, but reiterated that Woodside will take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.84.1).
- (3) On 15 September 2023, RRKAC emailed Woodside noting the compliance burden on industry and RRKAC, advising they have noted Woodside's plans, and that they are not resourced to adequately respond, and would require Woodside to fund additional resources.
- (3) On 18 September 2023, Woodside emailed RRKAC confirming that Woodside will provide funding to enable groups to participate in consultations.

Summary of Feedback, Objection or Claim **Woodside Energy's Assessment of Merits of Environment Plan Controls** Feedback, Objection or Claim and its Response (1) Woodside responded to RRKAC/HAC's requests for (1) During face-to-face engagements related to this (1) Existing controls considered sufficient, as activity and others, the RRKAC/ HAC requested further information during face-to-face engagements, described in Section 6. further information on topics related to this and no further information was requested on these (2) & (3) Woodside is implementing a program to proposed activity which was responded to during topics. actively support Traditional Custodians' capacity the meeting: for ongoing engagement and consultation on environment plans referenced as **PS 4.9.1** in this Emergency preparedness. (2) Woodside supports ongoing engagement and have EP. This includes addressing RRKAC's responded to RRKACs advice about the limitations The depth of the wells. resourcing issue for ongoing consultation via a on their resources. Woodside has offered to support What happens with a small diesel spill. Framework Agreement. RRKAC in correspondence sent in May and The RRKAC/HAC raised feedback and request for September 2023, however these offers have not further information on the Scarborough project been taken up. more broadly which will be provided as part of ongoing engagement. (3) Woodside has assessed the Program of Ongoing (2) The RRKAC/HAC expressed a desire for ongoing Engagement with Traditional Custodians will support engagement and partnership. ongoing consultation with RRKAC and address (3) RRKAC noted that they are insufficiently appropriate support for resourcing, separate from resourced to fully engage and respond regarding consultation under Reg 11A, Sufficient information to EPs. allow informed assessment has already been provided by other means, including Consultation Information Sheets and a Summary Information

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Sheet developed by Indigenous staff members, and a face to face meeting on 15 March 2023 for which Woodside met RRKAC's costs, with appropriate material (pictures, maps, videos) and project attendance allowing opportunity to ask questions and seek further understanding.

Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)

NTGAC is established under the Native Title Act 1993 by the Baiyungu people to represent the Baiyungu people (defined broadly by reference to descent from the set of ancestors who were known to have a continuous and unbroken connection as the Traditional Custodians at the time of European colonisation) and represent their communal interests including, among other things, management and protection of cultural values.

Woodside has consulted under Regulation 11A with NTGAC by providing sufficient information, a reasonable period of time and opportunity for NTGAC to make an informed assessment of the possible consequences of the activities on functions, interests or activities. Woodside has addressed each objection or claim made by NTGAC. Woodside has included cultural values and controls relevant to Woodside's understanding of NTGAC's functions, interests and activities in its environment plan and in response to topics raised during consultation by NTGAC.

As demonstrated in the summary below and consultation record that follows, consultation with NTGAC complies with Regulation 11A and is complete.

Summary

Sufficient Information:

- Woodside Sought direction on NTGAC's preferred method of consultation. This resulted in two face-to-face meetings being coordinated at location of NTGAC's choosing, with NTGAC nominated representatives. These meetings included Woodside presenting information in a format and style that was readily accessible and appropriate.
- Provided Consultation Information Sheet and Consultation Summary Sheets to NTGAC. These set out details of the proposed activity, the location of the activity, the timing of the activity as well as the potential risks and impacts of the activity in a digestible, plain English format.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls to manage potential impacts to ALARP and acceptable levels.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and interested individuals.
- Woodside has provided NOPSEMA's Brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan"
- Provided response to questions asked about the activity through consultation. Through these questions, NTGAC have displayed an understanding of the activities under this Environment Plan as well as the broader Scarborough Project.
- As per a request from NTGAC, Woodside funded YMAC's environmental scientist to attend two face-to-face meetings to support consultation and funded a YMAC lawyer to attend the August meeting with NTGAC. This assisted in ensuring any technical information was provided in a way which allowed NTGAC to make an informed assessment of the possible consequences of the activities on the functions, interests or activities.

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Reasonable Period:

- Woodside published advertisements in national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, Northwest Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
- Woodside commenced consultation with NTGAC in January 2023. Woodside has since addressed and responded to NTGAC queries over 9 months, demonstrating a "reasonable period" of consultation.

Woodside advised that NTGAC can request that particular information provided in the consultation not be published (to align with 11A(2)(4))

Woodside asked NTGAC if it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside has provided a reasonable opportunity for input since January 2023 and a genuine two-way dialogue has occurred via meetings and written exchanges to further understand the environment in which the activity will take place. NTGAC has engaged with the detail of the activity asking related questions. The details of these engagements are described in the consultation summary below.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NTGAC functions, interests or activities.

Woodside does not agree with NTGAC's assertion that it has not yet completed consultation under regulation 11A for the activity. Woodside has assessed the claims and feedback raised by NTGAC, as detailed later in this section alongside Woodside's response to the claims. Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NTGAC's functions, interests, or activities.

Summary of information provided and record of consultation:

YMAC is the Native Title Representative Body (NTRB) for the Yamatji and Pilbara regions, which includes NTGAC. NTRBs exist to provide assistance to native title claimants and holders in regard to their native title rights. No native title has been recognised over the Project Area, however YMAC is identified in the North-west Marine Parks Network Management Plan as the contact for identifying cultural values in nearby Australian Marine Parks.

- On 7 July 2022, Woodside met with YMAC to request advice on the appropriate cultural authorities for the Scarborough project area, including but not limited to the scope of this EP and nearby marine parks.
 - Woodside described the Scarborough Project and its footprint and gave an overview of indigenous parties consulted.
 - Woodside noted that YMAC was identified in the North-West Marine Parks Network Management Plan as contact for identifying cultural values in nearby Australian Marine Parks. Woodside sought to understand if cultural values of the nearby Gascoyne Marine Park may extend into the offshore Scarborough project areas.
 - Woodside requested advice on how best (in addition to work completed) to identify any cultural values in the Marine Parks and the broader project footprint.
 - YMAC requested Woodside provide the relevant detailed information relating to the location and extent of the project.
 - YMAC directed Woodside that consultation related to Scarborough Project would be best directed to Murujuga Aboriginal Corporation and Ngarluma Aboriginal Corporation

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- YMAC did not direct Woodside to engage with NTGAC, however NTGAC was identified as a relevant person under methodology outlined in Section 5 and YMAC is listed as NTGAC's preferred contact on the ORIC website and is therefore Woodside's primary contact when engaging NTGAC.
- On 6 January 2023, Woodside phoned NTGAC via the representative body Yamatji Marlpa Aboriginal Corporation (YMAC) for the purpose of introduction and to explain that Woodside will be sending information concerning EPs.
- On 20 January 2023, Woodside emailed NTGAC via the representative body YMAC advising of the proposed activity (Appendix F, Reference 1.29) and provided a simplified Consultation Information Sheet (including a link to the detailed information sheet on Woodside's website) as well as a summary overview fact sheet, asking what interests NTGAC and its members may have within the EMBA and whether they required any information to prepare for a meeting.
- On 27 January 2023 Woodside phoned and emailed NTGAC/YMAC to follow up on the information provided (Appendix F, Reference 1.31) and information sought. Woodside requested if NTGAC required anything further ahead of an already planned meeting with Woodside on 16 February 2023.
- On 1 February 2023, NTGAC/YMAC phoned Woodside to confirm the planned meeting for 16 February 2023. It was arranged to hold a subsequent phone discussion between key representatives on 10 February to discuss scope for the consultation meeting. Woodside said that it is anticipating feedback from the group on the proposed activity at this consultation meeting and asked for any specific families or individuals that Woodside should be engaging with to be invited. NTGAC/YMAC responded that consultation with NTGAC as the representative body is appropriate. Woodside respected NTGAC's response and supported all NTGAC's proposed attendees to attend the meeting.
- On 10 February 2023, Woodside phone NTGAC and described the proposed scope of the consultation meeting planned for 16 February 2023.
- On 16 February 2023, Woodside presented to a meeting of the NTGAC Board and YMAC representatives:
 - Woodside described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Woodside encouraged NTGAC to raise anything which they feel is missing in the information provided during the meeting.
 - Woodside displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Woodside provided an overview of the broader Scarborough Project.
 - Woodside provided an overview of each proposed Scarborough activity (including Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline Installation and Subsea Infrastructure Installation) and a summary of both planned and unplanned impacts and associated controls. This included the use of a video showing the general process of drilling and completions which was designed for public audience.
 - (1) YMAC asked for clarification on the risk of a blowout during drilling, Woodside responded that it could credibly occur but only gas would be released, not liquid hydrocarbon
 - NTGAC asked whether there is a risk of striking oil instead of gas, Woodside responded that exploration drilling has already ben done and samples confirmed that there is only gas in the reservoir, and all processing infrastructure has been designed to only deal with dry gas
 - Woodside described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
 - (1& 2) NTGAC asked if Woodside could explain impacts on whales from noise.

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- Woodside replied that there has been modelling work done and applied to understanding of thresholds for hearing and behavioural impacts. It shows that there will be no lasting effect on whales, however there could be short term hearing impacts. Measures have been taken like removing driven piling from the activities to reduce noise impacts.
- Woodside further explained that there are not expected to be many turtles, dugongs, or humpbacks offshore but there could be pygmy blue whales.
- (1) YMAC asked how Woodside will monitor for whales.
- Woodside explained that it will have dedicated marine fauna observers and systems which can listen for whale song on some vessels. Presence of whales can postpone activities. Woodside noted that noise impacts are time bound and that whale tagging, and behaviour monitoring shows they are migrating and unlikely to stay around for hours, reducing the likelihood of impact from noise.
- (2) While discussing another activity, NTGAC expressed interest in whale sharks
- The EMBA for each proposed Scarborough activity was displayed, and the individual worst-case loss of containment scenarios identified, noting that they are all diesel fuel releases which would only be caused by vessel collisions.
- Woodside noted this concluded the Scarborough section of the meeting and called for any further questions or feedback. None were received.
- Woodside stated that there is significant work and consultation coming up, and it hope to spend more time with NTGAC to understand expectations and desire of how Woodside can work with NTGAC.
- YMAC expressed that they are being inundated with requests for consultation from oil and gas operators and are working internally on processes and priorities for consultation.
- Woodside welcomed the transparency and discussion on capacity.
- NTGAC expressed that consulting on these types of activities is not viewed as wasting time, but consultation which gives nothing back to the community is not a priority. They are interested in partnership programs and on-country engagements.
- Woodside stated that while all the big companies will have deadlines and need to get feedback to meet legal requirements, Woodside desires it to be a jointly held process and that if NTGAC desires any support or assistance please request it.
- Woodside provided personal contact details for further feedback.
- Woodside provided NOPSEMA contact details, should NTGAC desire to provide feedback directly to the regulator.
- On 21 February 2023, NTGAC/YMAC emailed Woodside to seek clarification of the attendee names at the 16 February 2023 Board meeting.
- On 21 February 2023, Woodside emailed NTGAC/YMAC the attendee names at the 16 February 2023 Board meeting and provided a copy of the presentation pack. Woodside followed up on request for any further feedback on the proposed activity.
- On 22 February 2023 NTGAC/YMAC emailed Woodside to thank Woodside for sending the relevant information.
- On 17 March 2023, Woodside met with NTGAC's legal representatives to discuss consultation on the Scarborough Project, preferred method and locality of consultation meetings, and to note that they will assist groups with funding to hold meetings on an agreed basis.
- On 22 March 2023, Woodside followed up by phone with NTGAC/YMAC on any feedback on the proposed activities. None was received.
- On 28 March 2023, YMAC followed up with Woodside on a Woodside action arising from the 16 February meeting to supply photos and diagrams in relation to the
 different activity.

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- On 31 March 2023, Woodside followed up with the relevant photos and diagrams, noting contact details and welcoming any further feedback. Woodside thanked NTGAC for their work to date and requested that NTGAC reach out for any assistance. No further response was received to Woodside's request for feedback on the activity.
- On 19 April 2023, Woodside emailed YMAC/NTGAC following up with information offered at the meeting of 13 March 2023; management of emissions, organisations that may provide independent expertise and re-iterating they would like to meet with NTGAC.
- Between 22 May 19 June 2023, Woodside and NTGAC exchanged emails about other activities unrelated to this activity.
- On 19 June 2023, NTGAC/YMAC emailed Woodside with instructions from NTGAC Directors that they would like to undertake a consultation workshop with Woodside
 on their activities.
- On 19 June 2023, Woodside emailed NTGAC/YMAC to request a one-day meeting with the NTGAC Directors to allow time for discussion and questions and offered to fund reasonable meeting costs.
- (3) On 20 June 2023, in two separate emails NTGAC replied they would return to Woodside with a suitable date and sought confirmation that Woodside would again fund the attendance of the in-house environmental scientist.
- On 20 June 2023, Woodside replied they were happy to fund the in-house environmental scientist.
- On 21 June NTGAC/YMAC emailed Woodside confirming a full day workshop to cover all activities.
- On 21 June 2023, Woodside emailed NTGAC seeking a pre-meet to plan the workshop and offer further assistance.
- On 30 June 2023, NTGAC emailed Woodside with a budget estimate for the meeting in Exmouth.
- On 5 July 2023, Woodside replied confirming the date and that they would pay for the costs outlined in the budget.
- On 17 July 2023, YMAC emailed Woodside referring to the draft YMAC consultation framework for PBCs and asked that the workshop focus on strategic planning with additional funding.
- On 19 July 2023, Woodside emailed NTGAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted
 Information. The email advised NTGAC that sensitive information will be managed carefully, and that relevant persons can request that information is not published.
 This email also reiterated Woodside's request that NTGAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should
 consult. No response was received to this email.
- On 24 July 2023, Woodside agreed to the change of workshop focus and additional funding, proposed an agenda and a pre-meeting for joint planning.
- On 25 July 2023, Woodside emailed the YMAC CEO (and copied the NTGAC representatives) responding to the draft YMAC Framework for Consultation and emailing Woodside's planned Program of Ongoing Engagement with Traditional Custodians, noting that Woodside's Program would complement what is proposed in NTGAC's proposed Framework. The email proposed a meeting at YMAC's earliest convenience.
- On 28 July 2023, NTGAC confirmed availability for a pre meeting.
- On 31 July 2023, Woodside emailed NTGAC/YMAC to accept a pre meeting date.
- On 3 August 2023, Woodside emailed NTGAC/YMAC about an unrelated activity and thanked YMAC for the pre meeting held on 2 August and confirmed the meeting
 with NTGAC on 15 August 2023. Woodside also provided links to NOPSEMA's consultation documents, including links to the Brochure, Guideline and Policy
 documents.
- On 9 August 2023, Woodside emailed NTGAC/YMAC requesting clarity around the meeting scheduled for 15 August 2023.

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- On 9 August 2023, Woodside emailed NTGAC/YMAC again seeking feedback and information relating to a separate Scarborough EP with the same EMBA to this activity that had been accepted, stating the conditions of acceptance of that EP:
 - if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
 - if there is any information you wish to provide on cultural features and/or heritage values.
- (4) On 11 August 2023, NTGAC/YMAC emailed Woodside stating that NTGAC had not yet been consulted regarding the separate accepted Scarborough activity, that the proposed time frame for consultation is not workable for NTGAC, that they would be raising this with NOPSEMA and wished to discuss further in the meeting planned for 15 August 2023.
- On 11 August 2023, Woodside emailed NTGAC/YMAC noting that activity under Scarborough Seismic would no longer commence on the date previously notified. Woodside confirmed the attendees for the meeting on 14 August 2023.
- On 14 August 2023, NTGAC/YMAC emailed Woodside acknowledging the meeting to be held 15 August 2023.
- On 15 August 2023, Woodside presented to the NTGAC about several EPs including an update on this EP. At the meeting Woodside:
 - Described the Environment Plan framework, referring to the Offshore Petroleum and Greenhouse Gas Storage Act (Environment) Regulations, NOPSEMA's role as regulator and general contents of Environment Plans.
 - Displayed a map of activities open for feedback to be discussed in the meeting and provided a list of other upcoming activities which will be open for consultation in 2023.
 - Provided an update on the Scarborough Project activities including the Marine Seismic Survey, Drilling and Completions, Seabed Intervention and Trunkline Installation and Subsea Installation EPs.
 - Described the types of vessels involved.
 - Described planned and unplanned environmental risks and impacts in accordance with tables provided in the Information Sheets for the activities, emphasising that unplanned risks are not expected to occur and are unlikely.
 - Displayed and spoke to the EMBA for each proposed activity, and the individual worst-case loss of containment scenarios identified, noting that they are all diesel fuel releases which would only be caused by vessel collisions.
 - Described planned and unplanned risks and impacts of the activity, and discussed controls in place to manage risks/impacts to ALARP and acceptable levels
 - Stated that Woodside wanted to understand how the functions, activities, or interests of NTGAC and the people it represents may be impacted by any of those activities.
 - Specifically asked the following:
 - How could these activities impact your cultural values, interests, and activities does protecting the environment do enough to protect your cultural values?
 - What are your concerns about the proposed activities and what do you think we should do about them?
 - Is there anything you would like included in the EPs before submission?
 - Is there anyone else Woodside should consult with about the activities?
 - Advised that Woodside will continue to take feedback from NTGAC for the life of the EP.

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- Provided personal contact details for further feedback. Woodside provided NOPSEMA contact details, should NTGAC desire to provide feedback directly to the regulator.
- At the 15 August meeting NTGAC/YMAC asked the following questions and gave the following feedback:
 - (1) YMAC asked about whale sightings and response.
 - Woodside responded that response depended on activity and controls, Marine Mammal Observers are implemented.
 - (1) NTGAC asked about ballast water discharges, Woodside responded by describing Invasive Marine Species requirements and controls.
- **(5)** A proposed framework for consultation was discussed, involving Woodside funding General Project Reports to be written by an independent suitably qualified and experienced consultant, to be provided to NTGAC initially and then on to Woodside. The General Project Reports outline the nature of the activities for each phase of the project and the risks associated with each of the relevant activities
- Terms for ongoing engagement were discussed, including frequency, participation, and content in context of the proposed General Project Report
- **(6)** NTGAC Strategic Plan and relation to potential Woodside social investment opportunities were explored.
- NTGAC stated their consultation expectations (two-way dialogue preferred over one-way presentations and requested that consultation meetings cover whole projects or phases rather than single EP activities which is too time consuming).
- NTGAC requested that a table of EPs be submitted by December with a timeline.
- **(4)** NTGAC stated that they did not consider that they had been consulted on other EP's based on engagement to date, stating that the information provided had been too technical.
- On 31 August Woodside emailed NGTAC/YMAC to provide a copy of the presentation from 15 August and communicating Woodside's understanding of next actions:
 - YMAC to provide a first draft of a consultation agreement. Woodside offered to provide support or first draft if NTGAC desired, however this offer of support has not been accepted.
 - YMAC to prepare the first draft of a general report.
 - Woodside to provide a list of upcoming activities.
 - Agreed to continue discussions relating to key community focus areas highlighted by NTGAC.
 - Feedback from NTGAC on the appropriateness of the information given by Woodside (too technical) to enable NTGAC to provide feedback.
 - The email also noted that Woodside considers consultation has commenced and is ongoing, however Woodside will work with NTGAC to develop the process further.
- On 31 August 2023, NTGAC/YMAC emailed Woodside confirming they would respond shortly to the outcomes as assessed by Woodside and requesting response to
 queries in relation to another activity.
- On 1 September Woodside emailed NTGAC/YMAC, acknowledging information requested would be provided as soon as possible.
- On 14 September 2023, Woodside emailed NTGAC advising of the planned start date for the activity, and once again requesting if NTGAC is aware of any other people with whom Woodside should consult, and if there is any information NTGAC wish to provide on cultural values. The email requested this information prior to 28 September 2023. It also asked NTGAC to provide the attached Consultation Fact Sheets and Summary Information Sheets to members or individuals who may be interested. No response was received to this email. The email described the purpose of consultation and included links to NOPSEMA's guidelines related to consultation.

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Woodside will continue to pursue an ongoing two-way relationship with NTGAC under the Proposed Program of Ongoing Engagement with Traditional Custodians.

Summary of Feedback, Objection or Claim Woodside Energy's Assessment of Merits of **Environment Plan Controls** Feedback, Objection or Claim and its Response (1) During face-to-face engagements on 16 Feb and (1) Woodside responded to NTGAC's requests for (1) Existing controls considered sufficient, as 15 Aug 2023 related to this activity and others, described in Section 6. further information during face-to-face engagements NTGAC requested further information on topics in which they were raised, and no further information (2) Woodside updated Section 4.9.1.6 to reflect related to this proposed activity which was was requested on these topics. NTGAC's interests and potential cultural values. responded to during the meetings: including whales and whale sharks, and assessed (2) Woodside noted NTGAC's interest in whales and How EMBA's are developed. potential impact on these, including controls, in whale sharks. section 6.10. The probability of a blowout (3) Not required Ballast water discharges (3) Woodside funded YMAC's environmental scientist to (4) Not required Whale sightings and response attend two face-to-face meetings on 16 Feb 2023 (5) (6) Woodside is implementing a program to and 15 Aug 2023 to support consultation. No actively support Traditional Custodians' capacity for feedback was received from this activity. Woodside (2) NTGAC have expressed a general interest in ongoing engagement and consultation on has also offered to financially support provision of whales and whale sharks. Woodside discussed environment plans, referenced as PS 4.9.1 in this EP. independent, third party advice to NTGAC (19 April controls protecting whales and whale sharks from This includes continued engagement regarding 23) which has not been taken up. an ecological perspective during meetings in NTGAC's proposed Consultation Framework which which they were raised, and no further feedback or will be applied to ongoing consultation, and potential (4) Woodside does not agree with NTGAC's claim that it comment was received on these topics. support for their Strategic Plan. This is described has not yet been consulted on the activity, or that (3) NTGAC requested funding for YMAC's in-house further in the Program of Ongoing Engagement with information provided has been too technical. environmental scientist. Traditional Custodians, Appendix J Woodside met with NTGAC nominated (4) NTGAC claimed that they have not been representatives, at location of NTGAC's choice on 16 consulted about the activity to date, stating that Feb and 15 Aug 2023 for multiple hour sessions they could not provide information on cultural where the activity was described face to face by values because the information provided has been Woodside project representatives, subject matter too technical and that timeframes were not experts and First Nations relations advisers (see sufficient. section 5.9.1 for approach). This included specifically (5) NTGAC are developing the first draft of a developed "plain English" material developed by First Consultation Agreement, and General Report. Nations personnel in collaboration with technical The proposal for the General Report is that it experts, maps, pictures and a short video visually would outline the nature of the activities for each communicating the drilling process. During the phase of the project and the risks associated with meeting, NTGAC and YMAC representatives were

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- each of the relevant activities. Woodside are awaiting receipt of the initial draft of the General Report.
- (6) NTGAC are interested in exploring social investment opportunities with Woodside which may support NTGAC's Strategic Plan.
- encourage to control the pace of the engagement and seek clarification. NTGAC and YMAC asked questions about the activity (see point 1) which indicates that material was engaged with. Woodside has also funded YMAC's in-house environmental scientist to support consultation. Woodside has addressed and responded to NTGAC over 9 months, demonstrating a "reasonable period" of consultation
- (5) Separate from consultation under Reg 11A for this activity, Woodside will establish a Consultation Agreement with NTGAC. The Consultation Agreement and General Report/s would be used to frame ongoing consultation to occur as part of Woodside's commitment to post Reg 11A consultation ongoing engagement. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff, multiple face to face meetings with appropriate material (pictures, maps, videos) and project attendance allowing opportunity to ask questions and seek further understanding, and agreement to fund NTGAC/YMAC environmental scientist who was also present at the meetings.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see **Section 7.8.1**).

(6) Woodside is continuing to work with NTGAC regarding social investment opportunities. Woodside has assessed that the Framework for Ongoing Consultation with NTGAC is an effective mechanism

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for exploring opportunities for alignment with NTGAC's Strategic Plan	
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Native Title Representative Bodies

Yamatji Marlpa Aboriginal Corporation (YMAC)

YMAC is the Native Title Representative Body for the Yamatji and Pilbara regions of Western Australia. As such, they are not a Prescribed or Registered Native Title Body Corporate but exist to assist native title claimants and holders.

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with YMAC for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

Sufficient Information:

- Consultation Information Sheet publicly available on the Woodside website since July 2021, further updated and available from January 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers in October 2022 and then again 18 and 20 January 2023 advising of the
 proposed activities and requesting comments or feedback.

Reasonable Period:

- Consultation information provided to YMAC on 20 January 2023 based on their function, interest, and activities.
- Woodside has addressed and responded to YMAC over a 12-month period, demonstrating a "reasonable period" of consultation.
- Woodside considers that the "reasonable period" of consultation for this EP has closed.

Summary of information provided and record of consultation:

Historical Engagement

- On 7 July 2022, Woodside met with YMAC to request advice on the appropriate cultural authorities for the Scarborough project area, including but not limited to the scope of this EP and nearby marine parks.
 - Woodside described the Scarborough Project and its footprint and gave an overview of indigenous parties consulted.
 - Woodside noted that YMAC was identified in the North-west Marine Parks Network Management Plan as the contact for identifying cultural values in nearby Australian Marine Parks. Woodside sought to understand if the cultural values of the nearby Gascoyne Marine Park may extend into the offshore Scarborough project areas.
 - Woodside requested advice on how best (in addition to work completed) to identify any cultural values in the Marine Parks and in the broader project footprint.
 - YMAC requested Woodside provide the relevant detailed information relating to the location and extent of the project.

Ensuring Sufficient Information and Sufficient Time

On 8 July 2022, Woodside emailed YMAC providing the requested information including a link to the factsheet relevant to this EP.

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- Woodside advised it would like to establish a process to cross check its understanding of cultural and spiritual values associated with proposed offshore development and surrounding areas. We note that YMAC has been listed as the Native Title Representative body in the North-west Marine Parks Network Management Plan for nearby Australian Marine Parks and would therefore like to confirm cultural values of these marine parks don't extend into Woodside's areas of interest.
- Woodside provided an extract from a related Scarborough EP which detailed further context and Woodside's current understanding of cultural and spiritual values associated with proposed offshore development and surrounding areas.
- On 19 July 2022, YMAC responded to Woodside:
 - YMAC stated the area Woodside has identified requires correspondence directed to Murujuga Aboriginal Corporation and Ngarluma Aboriginal Corporation.
 - The extent to which each corporation has interests specifically over the area of this EP was not advised, but both have been involved in assessments of cultural values as detailed below. YMAC does not act for either corporation.
- On 19 July 2022, Woodside sent a follow up email regarding finding a delegate for the above.
- On 13 March 2023, Woodside emailed YMAC as to whether YMAC considers itself a 'relevant person' under sub regulation 11 A (1) of the Environment Regulations for the purposes of consultation on EPs and, if so, whether that relevance is limited to a facilitation function in its capacity as a representative of Traditional Owner groups/corporations that overlap or adjacent to the environment that may be affected (EMBA) of a particular activity.
- On 20 March 2023, YMAC replied to confirm that in its view it is a 'relevant person' under sub regulation 11 A (1) of the Environment Regulations for the purposes of consultation on EPs only in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation. YMAC does not intend to provide substantive comment on the content of EPs.
- On 20 March 2023, Woodside emailed YMAC to thank it for its reply and to advise that that this assessment would be included in Woodside's EPs.
- On 20 March 2023, YMAC emailed Woodside confirming that it is appropriate to use the assessment in the EPs.
 - YMAC is the representative for NTGAC and was the representative for Yinggarda Aboriginal Corporation until April 2023.
- On 12 June 2023, YMAC emailed Woodside on behalf of itself and its clients. The email attached:
 - A proposal to fund in-house expertise to support consultations and administration of the consultation framework.
 - A draft consultation framework.
- On 12 June 2023, Woodside responded to YMAC by email thanking them for the documents and that Woodside would respond shortly.
- On 25 July 2023, Woodside emailed YMAC:
 - Agreeing in principle to the draft consultation framework and funding proposal but seeking further discussion on details.
 - Stating that Woodside is open to considering an industry funded position at YMAC to support the work they are facilitating.
 - Attaching Woodside's Program for Ongoing Engagement with Traditional Custodians.
 - Seeking a meeting with YMAC in relation to the draft consultation framework at YMAC's earliest convenience.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
YMAC has advised that the most appropriate stakeholders for the Scarborough project generally are	YMAC is the Native Title Representative Body for the Yamatji and Pilbara regions of Western Australia. As	Woodside considers the measures and controls described within this EP address the potential impact

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Murujuga Aboriginal Corporation and Ngarluma Aboriginal Corporation who are not represented by YMAC.

YMAC has provided feedback that in its view it is a 'relevant person' under sub regulation 11 A (1) of the Environment Regulations for the purposes of consultation on EPs only in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation and does not intend to provide substantive comment on the content of EPs.

YMAC has provided feedback that it is seeking an industry funded position to support consultations for this and other activities.

YMAC has provided a draft consultation framework to assist the consultation process.

such, they are not a Prescribed or Registered Native Title Body Corporate representing the cultural rights of a Traditional Custodian Community but exist to assist native title claimants and holders.

YMAC is identified in the North-west Marine Parks Network Management Plan 2018 (DNP, 2018) as the Native Title Representative Body, noting no marine parks overlap the Operational Area.

Woodside has approached YMAC to confirm the best approach to confirm additional cultural values (if any) within the Operational Area.

Woodside has consulted with YMAC in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation, and it has responded that it does not intend to provide substantive comment on the content of EPs.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (refer to Section 7).

Woodside is engaging with YMAC in relation to its request for an industry funded position and a draft consultation framework.

from the proposed activities on YMAC's functions, interests or activities.

Woodside will implement a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values, referenced as **PS 4.9.1** in this EP.

Based on the engagement to date, no additional controls have been identified.

Self-identified First Nations Groups

Ngarluma Yindjibarndi Foundation Ltd (NYFL)

NYFL was created to act as Trustee for the Trust under the Northwest Shelf Agreement 1998 struck between the Ngarluma and Yindjibarndi registered native title claimants, the NWS JVs and Woodside, prior to the resolution of the Ngarluma and Yindjibarndi native title claim. Its purpose is to carry on the business of enterprise development, investment and social welfare.

In 1999 the Ngarluma and Yindjibarndi native title claim was settled with the Federal Court appointing, at the request of the common law native title holders, the Ngarluma Aboriginal Corporation (NAC) as PBC to represent the communal interests of the Ngarluma people and the Yindjibarndi Aboriginal Corporation (YAC) as PBC to represent the communal interests of the Yindjibarndi people. Woodside consulted both NAC and YAC as relevant persons in the course of preparing this EP.

NYFL self-identified and has advised it is relevant for this EP.

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with NYFL for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

Sufficient Information:

- Sought direction on NYFL's preferred method of consultation. NYFL requested consultation material suitable for Traditional Custodian audience, which was developed and provided. NYFL and Woodside initially agreed to hold a face-to-face consultation meeting at location of NYFL's choosing with NYFL nominated representatives, however NYFL chose to postpone the engagement for an undefined time.
- Provided Consultation Information Sheet and Consultation Summary Sheets to NYFL
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Set out in detail what is being sought through consultation.
- Asked for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's guidelines and brochure on consultation
- Reasonable Period:
- Woodside published advertisements in a national, state, and relevant local newspapers including The Australian, The West Australian, Pilbara News (October 2022 and January 2023), Midwest Times, North West Telegraph and Geraldton Guardian (January 2023) advising of the proposed activities and requesting comments or feedback.
 - Met with NYFL and described the activity in detail in September 2022
 - Consultation information provided to NYFL on 27 January 2023 based on their function, interest, and activities.
 - Woodside has addressed and responded to NYFL over 12 months, demonstrating a "reasonable period" of consultation.

Woodside asked NYFL it was aware of any other Traditional Custodian groups or individuals with whom Woodside should consult. None were identified.

Woodside engages in ongoing consultation, beyond that required by Regulation 11A, throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1 of the EP).

Woodside considers the measures and controls described in this EP address the potential impact from the proposed activity on NYFL functions, interests, or activities.

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below.

Summary of information provided and record of consultation:

- On 23 September 2022, Woodside emailed NYFL advising of a related Scarborough activity and provided a Consultation Information Sheet and Consultation FAQs.
- On 26 September 2022, NYFL emailed Woodside and stated NYFL would like to understand more about Scarborough proposed activities and mitigations.
- On 27 September 2022, Woodside emailed and phoned NYFL seeking a time to meet. Woodside suggested it could then look to respond in detail in early October to give NYFL enough time to respond if there are further concerns.

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- On 27 September NYFL emailed Woodside to schedule a meeting in Roebourne on Friday 30 September.
- On 30 September 2022, representatives of Woodside and NYFL discussed the activities in the EP in detail. NYFL explained that the current information sheets were
 difficult to understand. Woodside undertook to provide plain English materials that were in development.
- On 4 October 2022, NYFL emailed Woodside:
 - NYFL thanked Woodside for taking the time to talk through ways in which complex information such as that which relates to EPs can be appropriately communicated to NYFL and its TO board and members.
 - NYFL advised that as discussed, at present the language and communication approach in EPs, such as that sent to NYFL on 23 September 2022, is not appropriate for NYFL. As such NYFL cannot confidently say it is OK with the activity.
 - (1) NYFL also thanked Woodside for communicating to the business that NYFL is a 'relevant person' for the activity.
- Between October 2022 and March 2023, while Woodside and NYFL have weekly communications on other matters, there was a hiatus on communication due to changes to activity scheduling and description of the EMBA.
- On 30 November 2022, Woodside and NYFL held the Woodside NYFL NWS quarterly relationship meeting which is resourced by Woodside to enable meaningful participation by Traditional Custodians. There was a separate discussion about holding a separate meeting for EPs generally.
- On 27 January 2023, Woodside emailed NYFL as a member of the Karratha Community Liaison Group and provided a Consultation Information Sheet and Consultation FAQs (Appendix F, Reference 1.44).
- (2) On 14 February 2023, NYFL emailed Woodside to see if the accessible information for Traditional Custodians had been prepared.
- On 1 March 2023, Woodside and NYFL held the Woodside NYFL NWS quarterly relationship meeting which is resourced by Woodside to enable meaningful participation by Traditional Custodians. There was a separate discussion about holding a separate meeting for EPs generally.
- On 20 March 2023, Woodside emailed NYFL about all Scarborough activities activity providing further information (and provided a simplified Summary Information Sheet (developed with a Ngarluma Traditional Custodian for a Traditional Custodian audience) and including a link to the detailed information sheet on Woodside's website.
- On 20 March 2023, NYFL emailed Woodside thanking them for the information and stating they would discuss the information with the Board and members.
- On 20 March 2023, Woodside emailed NYFL offering a meeting to present to the Board in relation to this activity and other activities.
- On 22 May 2023, Woodside emailed NYFL information in relation to an EP not related to this activity.
- (2) On 22 May 2023, the NYFL CEO replied saying that they were requesting information in an appropriate format for Traditional Custodians and saying that the language and approach was not appropriate for NYFL's members.
- On 24 May 2023, in response to the email on 22 May 2023, Woodside spoke to NYFL by phone, explained that the information sheets were developed with a Ngarluma
 Traditional Custodian but that the best way to understand the materials was to take Woodside up on our offer to present to NYFL. These presentations include images
 and videos, and the subject matter experts are on hand to answer questions. Presentations had been well received by other groups. Woodside had budget for
 consultation meetings and could provide support for the meetings to occur.
- On 8 June 2023, NYFL emailed Woodside about several matters including a request for "further information/culturally appropriate comms" for this activity.
- On 8 June 2023, Woodside reconfirmed previous offers to meet with NYFL in relation to the activity and other activities unrelated to this EP for the purpose face to face
 and consultation. Explained that these presentations have been well received from groups. Explained also that the summary information sheets provided were

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developed by Indigenous representatives for a Traditional Owner audience. Requested that if face to face consultation was not preferred by NYFL, whether they could provide some direction as to alternatives. Woodside reiterated they cover consultation costs and could meet in Roebourne, assuming that is preferred.

- On 28 June 2023, Woodside emailed NYFL confirming a consultation date of 20 July and requesting NYFL send through a quote for costs.
- On 28 June 2023, NYFL responded saying they would hold off on committing to a date while they had a change to digest the outcomes of the NOPSEMA Summit.
- On 29 June 2023, Woodside emailed NYFL in relation to an activity unrelated to this activity and asking whether they wished to be consulted.
- On 29 June 2023, NYFL responded stating that they were waiting to agree to national framework for consultation between industry and First Nations to be resolved before they consult on Environment Plans. This email was referring to the NOPSEMA Summit.
- On 10 July 2023, Woodside emailed NYFL seeking clarity in relation to their request. Woodside stated they understood the outcomes of the NOPSEMA Summit were as recorded by the facilitator and communicated to all participants as:
 - It was agreed that:
 - There is a need for a National Summit of Indigenous Groups and Traditional Owners to consult together and agree what they require and what their collective and individual concerns may be.
 - Government (DISR) will assist by mapping and compiling a list of all traditional owner groups that should be invited to this Summit,
 - Kimberley Land Council and other PBCs will form a Steering Committee to draft the agenda for this Summit,
 - APPEA will seek membership approval to facilitate by funding this Summit, and
 - The Summit will be independently facilitated.
 - APPEA to further consult with their members to get some agreement on priorities and next steps for Industry.
 - After the National Summit of Indigenous Groups, the first of several meetings will be held between a smaller representative Traditional Owners group and a smaller representative Industry group, the latter to be coordinated through APPEA: and
 - There will be ongoing parallel consultations in relation to current EPs, which will continue in accordance with what is required by Reg 11(A)(1)(d) of the OPGGSA Environment Regulations.
 - Woodside stated it is committed to supporting the National Summit of Traditional Owners and is committed to industry and Traditional Owners working together to agree consultation frameworks. Woodside noted, however, this will take time and necessarily must occur in parallel to ongoing consultation, with operators obliged to consult pursuant to Reg 11(A). Woodside also stated they were committing to a program of ongoing consultation for the life of the EP that would be happy to discuss that with NYFL.
- (3) On 10 July 2023, NYFL stated that they did not agree with the facilitators record of the NOPSEMA Summit, particularly that there will be parallel ongoing consultation in relation to current EPs prior to the proposed National Summit of Indigenous Groups and Traditional Owners
- On 19 July 2023, Woodside emailed NYFL NOPSEMA's Consultation Guideline, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also requested that NYFL advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult. No response was received to this email.
- On 26 July 2023, Woodside emailed NYFL Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 26 July 2023, NYFL emailed Woodside in response to Woodside's planned Program of Ongoing Engagement with Traditional Custodians, noting it was a good start particularly with the inclusion of Traditional Owner feedback and indicating that assistance with resourcing and internal capacity would be required.

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- On 2 August 2023, Woodside emailed NYFL regarding the acceptance of a different Scarborough EP with the same EMBA, asking for information in accordance with conditions of acceptance of the EP. It specifically asked whether NYFL is aware of any people, who in accordance with Indigenous tradition, may have spiritual or cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information. The email also contained links to information on NOPSEMA's publications on EP consultation and its purpose. It also made clear that any gender restricted, or culturally sensitive information would be managed carefully and appropriately. An offer of support to participate in consultation was made.
- On 4 August 2023, NYFL emailed Woodside regarding notification about acceptance of another Scarborough EP stating that they did not have sufficient resourcing to respond to EP matters. Requesting to meet to discuss a way forward.
- On 11 August NYFL emailed Woodside primarily in response to another matter. The email noted that :
 - NYFL look forward to progressing discussion with Woodside on the proposed program of consultation.
 - (4) NYFL is participating with other First Nations organisations and representative bodies to develop a framework for consultation.
 - **(5)** There may be people, wo in accordance with Indigenous tradition, may have spiritual and cultural connections to the EMBA that have not yet been afforded the opportunity to provide information
 - (6) There may be additional cultural or environmental values that relate to the area that have not been identified or communicated to Woodside
- On 15 August 2023, Woodside emailed NYFL thanking them for their correspondence and requesting availability to meet.
- On 18 August 2023 NYFL emailed Woodside noting a date of 30 August 2023 to meet to discuss next steps.
- On 18 August Woodside emailed NYFL accepting the proposed date to meet to discuss engagement processes.
- On 28 August 2023, Woodside emailed NYFL requesting a video link for a consultant to Woodside who will be involved in consultation and engagement going forward.
- On 28 August 2023, NYFL emailed through an agenda for the proposed meeting.
- On 28 August 2023, Woodside emailed NYFL acknowledging receipt of agenda and providing contact details for engagement.
- On 30 August 2023, Woodside met with NYFL to discuss a consultation process and engagement with NYFL and YAC, NYFL put forward the following:
 - **(7)** NYFL requested Woodside employ 3 traditional Owners who would engage/consult with NYFL members.
 - **(8)** NYFL stated that time frames must be longer than one month for consultation.
 - Woodside took the requests on notice.
- On 15 September 2023, Woodside emailed NYFL advising of the planned start date for the activity, and once again requesting if NYFL is aware of any other people with whom Woodside should consult, and if there is any information NYFL wish to provide on cultural values. The email requested this information prior to 28 September 2023, but reiterated that Woodside will take feedback after the commencement of the activity as part of ongoing consultation. The Summary Information Sheet for this activity was attached (Appendix F, reference 1.88). No response was received to this email.

NYFL is also consulted through its membership on the Karratha Community Liaison Group (KCLG) and the Quarterly Heritage Group.

 Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Feedback, Objection or Claim and its Response	

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- (1) NYFL self-identified and advised Woodside that they are a relevant person for this activity. Their feedback included a request for information sheets appropriate for a Traditional Custodian audience.
- (2) NYFL requested consultation material suitable to a Traditional Custodian audience.
- (3) NYFL wishes to pause consultation until after the First Nations national summit is held and a framework for consultation developed. Woodside understands that the First Nations national summit was tentatively scheduled for the end of August 2023, but may now take place in November 2023.
- (4) NYFL is working with other First Nations Organisations and representative Bodies to develop a framework for consultation. This has not yet been proposed to Woodside.
- (5) NYFL expressed that there may be people who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected who have not yet been afforded the opportunity to provide information.
- (6) NYFL expressed that there may be additional cultural and environmental values that relate to the area that have not been communicated to Woodside.
- (7) NYFL requested that Woodside employ three Ngarluma/Yindjibarndi Traditional Owners who would consult with NYFL members.
- (8) NYFL stated that time frames must be longer than one month for consultation.

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- (1) Woodside has responded to NYFL's selfidentification and consulted with them as a relevant person. NYFL was created to act as Trustee for the Northwest Shelf Agreement 1998. NYFL's membership is made up of Ngarluma people and Yindiibarndi people. membership is not open to any person who is not accepted as Ngarluma or Yindjibarndi. Woodside has also consulted with Ngarluma and Yindjibarndi Aboriginal Corporations individually. Ngarluma and Yindiibarndi Aboriginal Corporations were appointed by the Federal Court, at the request of the Ngarluma and Yindjibarndi common law native title holders as PBCs to represent the communal interests of the Ngarluma and Yindjibarndi people respectively. Ngarluma and Yindjibarndi Aboriginal Corporations are representative of all Ngarluma and Yindjibarndi people regardless of membership.
- (2) Woodside recognises that sufficient information must be provided in a form that is accessible and appropriate to the audience. In response to this request, Woodside developed and provided Summary information sheets developed with a Ngarluma Traditional Custodian for a Traditional Custodian audience. Woodside offered face to face consultation meetings resourced by Woodside to enable meaningful Traditional Custodian consultation, which include visual aids and videos. NYFL was initially amenable to this, however later postponed the engagement for an undetermined period (see claim 7)
- (3) Woodside does not consider that the proposal that consultation be paused until the proposed First Nations National Summit is reasonable.

- NYFL has been consulted with in accordance with the methodology described in Section 5 of the EP
- (2) Not required
- (3) Not required
- (4) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans, referenced as PS 4.9.1 in this EP. This includes continued engagement regarding NYFL's proposed Framework Agreement which would be applied to ongoing consultation for this activity. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix J
- (5) Methodology described in Section 5 adequately addresses this claim
- (6) Description of cultural values and heritage features is included in Section 4.9.1 of the EP
- (7) The proposed Framework Agreement (see point 4) will address appropriate NYFL resourcing. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix J
- (8) Not required

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Sufficient information and a reasonable period has already been provided prior to the Summit.

(4) Separate from consultation under Reg 11A, Woodside is open to engaging with a joint First Nations framework for consultation, however, notes that this is not required to undertake and/or complete consultation in the course of preparing this EP. The framework would be used to frame ongoing consultation. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff. Woodside has an existing engagement framework in place with NYFL which enables regular (quarterly) communication about Woodside activities.

Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see **Section 7.8.1**).

(5) As described in Section 5.9.2 of the EP, Woodside's consultation methodology provided Traditional Custodians with the opportunity to be aware of the proposed activity and to participate in consultation. Woodside considers this methodology has afforded all people whose spiritual connection to the environment that may be affected a reasonable opportunity to consult. Consultation with NYFL has not identified any other groups or individuals relevant to communally held functions, activities or interests. NYFL have been provided with reasonable time to respond with this information

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since the email from Woodside of 18 July specifically requesting this information, but no response to this request has been received.

Woodside has also consulted with Ngarluma and Yindjibarndi Aboriginal Corporations who are the Representative Aboriginal Corporations nominated by the Ngarluma and Yindjibarndi people respectively to represent the communally held interests of the Ngarluma and Yindjibarndi people.

- (6) Woodside has a robust understanding of the environment, cultural values and heritage features based on publicly available information and consultation with relevant persons. This is described in Section 4.9.1 of the EP
- (7) Woodside does not consider NYFL's request that Woodside employ three Ngarluma/Yindjibarndi traditional owners to consult with NYFL members a reasonable proposal. Woodside's consultation efforts are informed and undertaken by personnel with significant experience in First Nations relations, including Indigenous employees. Woodside assesses that the proposed Framework Agreement would be an effective mechanism to address resourcing for ongoing consultation.
- (8) Woodside has already provided NYFL with reasonable time to participate in consultation and has been engaging since September 2022.

Local government and community representative groups or organisations

Shire of Exmouth

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Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to Shire of Exmouth on 7 April 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Shire of Exmouth with the opportunity to provide feedback over a 14 month period.

Summary of Consultation Provided and Record of Consultation:

- On 7 April 2022, Woodside presented to the Shire of Exmouth, via the Exmouth Community Reference Group (ECRG), and provided consultation information on related petroleum activities for the Scarborough Project, which included reference to the proposed activities for this EP.
- On 17 November 2022, Woodside presented an updated on its planned Scarborough activities (Appendix F, Reference 1.24).
- On 1 February 2023, Woodside emailed the ECRG advising of the proposed activity (Appendix F, Reference 1.48) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.78).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has provided relevant information to address the ECRG representative's questions. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Shire of Karratha

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

Consultation Information Sheet publicly available on the Woodside website since July 2021.

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- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to Shire of Karratha on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Shire of Karratha with the opportunity to provide feedback over a 4 month period.

Summary of Consultation Provided and Record of Consultation:

- On 27 January 2023, Woodside emailed The Shire of Karratha, via the KCLG, advising of the proposed activity and provided an updated Consultation Information Sheet (Appendix F, Reference 1.45).
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.76).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Karratha Community Liaison Group (KCLG)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to KCLG on 27 January 2023 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the KCLG with the opportunity to provide feedback over a 4 month period.

Summary of information provided and record of consultation:

• On 27 January 2023, Woodside emailed the KCLG advising of the proposed activity and provided an updated Consultation Information Sheet (Appendix F, Reference 1.45).

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- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.76.).
- On 24 February 2023, Pilbara Ports Authority, as a KCLG member, responded to advise it had no comments on the proposed activity.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback was received from the KCLG with the exception of the Pilbara Port Authority, which advised it had no comments on the proposed activity.	Woodside notes that no feedback was received from the KCLG with the exception of the Pilbara Port Authority, which advised it had no comments on the proposed activities.	No additional measures or controls are required.
Whilst feedback has been received, there were no objections or claims.	Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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Exmouth Community Reference Group (ECRG)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to ECRG on 7 April 2022 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has addressed and responded to ECRG over a 14 month period.

Summary of information provided and record of consultation:

- On 7 April 2022, Woodside presented to the ECRG and provided consultation information on related petroleum activities for the Scarborough Project, which included reference to the proposed activities for this EP.
- On 17 November 2022, Woodside presented an update to its planned Scarborough activities (Appendix F, Reference 1.24).
- On 1 February 2023, Woodside emailed the ECRG advising of the proposed activity (Appendix F, Reference 1.48) and provided an updated Consultation Information Sheet.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.78).
- On 3 March 2023, an Exmouth CRG representative emailed Woodside, provided comment on another proposed activity and requested information on the timeline for the activity, asking if it could potentially be for a continual period up to 70 days, or in intervals.
- On 17 March 2023, Woodside responded to the ECRG representative explaining the planned duration and the commencement date, based on acceptance of the EP.
 Woodside invited any further feedback specific to this activity and provided multiple contact details.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
An Exmouth CRG representative queried the timeline for the activity.	Woodside has provided relevant information and more clarification to address the ECRG representative's questions.	No additional measures or controls are required.
Whilst feedback has been received, there were no objections or claims.	Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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Other non-government groups or organisations

350 Australia (350A)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with 350 Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to 350A on 25 February 2022 based on their function, interest, and activities.
- Woodside published advertisements in a national, state, and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to 350A over a 15-month period.

Summary of information provided and record of consultation:

- On 14 February 2022, during the course of preparing the EP, 350A self-identified and provided comment on the broader Scarborough development and requested to be consulted on the proposed activity.
 - 350A's members are affected by the Scarborough development in a number of ways; it has the potential to impact on marine wildlife. 350A needs to be certain the EP has considered impacts from all pollution sources on all potential receptors and has stringent monitoring and pollution response programs.
 - 350A believes the Scarborough development will produce over one billion tonnes of carbon emissions over the next 25 years, adding to WA's emissions and the planet's burden of climate change impacts, and it will accelerate climate change.
- On 25 February 2022, Woodside emailed 350A and included responses to address specific claims and objections raised regarding the proposed activity, where appropriate.
 - Woodside advised it will assess the self-identification by 350A and the comments received to determine relevancy for the purposes of consultation for future Scarborough EPs when those EPs are being prepared.
 - Woodside provided a link to the publicly available draft EP on the NOPSEMA website which has been available since 13 January 2022.
 - Woodside invited 350A to provide further feedback on the proposed activity.
- On 6 February 2023, Woodside emailed 350A, with an updated revision of the EP seeking feedback by 8 March 2023.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
350A self-identified, provided comment on the broader Scarborough development and requested to be consulted on the proposed activity. 350A provided feedback relating to:	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided	No additional measures or controls are required.

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- Impacts to marine wildlife from pollution
- Carbon emissions and climate change caused by the Scarborough development.

350A asked for additional time to provide feedback.

350A provided additional feedback:

- Consultation should be undertaken when Revision 3 of the EP is complete and available
- 350A requested a JASCO report on marine acoustic impacts
- Impacts of vessel use on turtles
- Limiting vessel speed in relation to whales
- Risks controlled to ALARP for vulnerable and endangered species.

to address specific claims and objections raised on the proposed activity, where appropriate.

Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see **Section 7**).

Conservation Council of WA (CCWA)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Conservation Council of WA (CCWA) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to CCWA on 20 August 2021 based on their function, interest and activities.
 Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to CCWA over a 22 month period.

Summary of information provided and record of consultation:

- On 12 August 2021, CCWA emailed Woodside about the broader Scarborough Offshore Gas Project and upcoming draft Environmental Plans, and stating it wishes to be consulted as a relevant person.
- On 19 August 2021, Woodside emailed CCWA thanking them for the letter and advising they would contact them soon.
- On 20 August 2021, Woodside emailed CCWA advising of the proposed activities and provided a Consultation Information Sheet (Appendix F, Reference 1.18).
- On 14 September 2021, CCWA emailed Woodside requesting:
 - Additional time to provide feedback.
 - A copy of the draft EPs and other application documents including studies that will be submitted to the regulator in support of the EP's.
- On 17 September 2021, Woodside responded to CCWA's feedback requesting consultation responses by 20 September 2021 as this period is consistent with other stakeholder response times and an additional 30-day comment period had already been granted to CCWA. Woodside further responded to advise consistent with the

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process in the legislation, consultation occurs while the draft EP is being developed. As EPs are in development, copies of the drafts are not provided to stakeholders during the consultation phase.

- On 20 September 2021, CCWA sent a letter to Woodside with the following key points:
 - CCWA is a "relevant person"
 - Form of consultation required under cl.11A of the Environment Regulations
 - The information sheet is not "sufficient information"
 - Information required by CCWA (12 technical gueries)
 - "Reasonable period" for the consultation
 - Further submissions
- On 7 October 2021, Woodside advised CCWA that it is aiming to provide further information in the following week.
- On 15 October 2021, Woodside responded to CCWA and provided additional information on the proposed activity. Woodside noting advised that CCWA provided comments on the OPP during the eight-week public comment period, and recommended that CCWA consider this in addition to information provided in the consultation information sheet. CCWA had technical queries on the worst-case oil spill, greenhouse gas emissions, cumulative impacts, geotechnical information, cultural heritage, demonstration of ALARP, acceptability and environmental performance outcomes, standards and measurement criteria. Each of these points was addressed. This included providing a worst-case loss of containment modelling outcome figure, and a list of aspects considered in the D&C EP with reference to where this is addressed in the Scarborough OPP. Woodside requested any further comments about the proposed Drilling and Completions activities by 29 October 2021.
- During the course of the assessment of this EP, Woodside received feedback from CCWA via the Regulator:
 - CCWA asserts that impacts on the Dampier Archipelago National Heritage Place, from the development of the Scarborough gas field, need to be assessed in EPs for the Scarborough Project.
 - CCWA asserts that previous requests for information on direct and indirect impact on the Murujuga Petroglyphs has not been met.
 - CCWA claim Woodside's consultation process has been restricted and consultation with a wider group of 'relevant' persons is required particularly Indigenous groups (i.e. MAC) but also trade union groups, youth groups, health sector groups and government agencies.
 - CCWA claims the Scarborough Project has not been properly referred, assessed and approved under EPBC Act with specific concerns about MNES inc. Great Barrier Reef.
 - CCWA claims Scarborough is excluded from class of actions covered by OPGGS Endorsed Program Approval as it is likely to have significant impact on World Heritage and National Heritage values of Great Barrier Reef.
 - CCWA objects to not being identified as a 'relevant person' in relation to the SCA D&C EP and the project more broadly, and that the information provided by WEL to date does not meet consultation requirements as defined in the Environment Regs (cl.11A).
 - CCWA claims that information provided has been 'narrowly limited' to D&C and have requested information on Trunkline, GHG emissions over the life of the project and the use of CCS. CCWA expects that impacts risks and consultation should not be narrowed to exclude key aspects of the Project.
 - CCWA claims it has not received sufficient information about GHG emissions and potential climate change impacts and risks of the Project.

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- CCWA claims it requires information from Woodside about the total greenhouse gas emissions of the Project over its lifetime (i.e., including "indirect" emissions from processing and consumption) and potential direct and indirect impacts of emissions on the environment.
- CCWA requests confirmation of total GHG emissions for the project, warming scenarios with which the Project is consistent and any proposed control measures.
- CCWA claims that information previously provided by Woodside with respect to Paris Agreement alignment, warming and energy mix scenarios is insufficient and dispute it may be inaccurate.
- CCWA requires further information on how the Project's climate change impacts and risks will be made acceptable and ALARP and submits that the only "acceptable" impact of a new fossil fuel project is that it achieves net zero emissions.
- CCWA claims emissions reductions arising from coal to LNG switching must be substantiated through credible and reliable evidence that displacement or substitution will or has actually occurred, with emissions reductions properly accounted for.
- CCWA requests that Woodside provide information as to its consideration of certain options and control measures (i.e., no development, reduction of GHG emissions to Net Zero, selection criteria for LNG buyers).
- CCWA objects to NOPSEMA's acceptance of the SCA D&C EP until consultation has been properly undertaken with all relevant persons and Woodside has demonstrated that the impacts and risks of the activity are acceptable and ALARP.
- CCWA claims the direct and indirect impacts of methane and other hydrocarbon leaks from the Scarborough gas field resulting from the operations require more careful consideration, including risk modelling for shoreline impacts from field leakage of methane.
- On 15 December 2021, Woodside received third-party correspondence via NOPSEMA in relation to this Scarborough activity. Following assessment of the feedback, Woodside determined that the feedback from CCWA on 27 October 2021 had included the following feedback, claims and objections that could also be related to the proposed activity and the subject of this EP. The feedback also included a number of additional third-party supporting documents:
 - CCWA asserted that impacts on the Dampier Archipelago National Heritage Place, from the development of the Scarborough gas field, need to be assessed in EPs for the Scarborough Project.
 - CCWA asserted its previous request for information on direct and indirect impact on the Murujuga Petroglyphs as it had not been met.
- CCWA claimed that Woodside's consultation process has been restricted and consultation with a wider group of 'relevant' persons is required (particularly Indigenous groups (i.e., MAC) but also trade union groups, youth groups, health sector groups and government agencies). On 16 March 2022, The Environmental Defender's Office (acting for CCWA) responded to the information provided. This feedback was again assessed on merit as it applies to this EP. Woodside confirms that following an assessment of the information contained in the letter, no new information has been presented for consideration under the PAP for this EP. Woodside considers the information previously provided on 25 February (and that presented above) adequately addresses feedback.
- On 25 February 2022, feedback has been assessed on merit as it applies to this EP and a summarised statement of response is presented below. A copy of these
 responses was provided to CCWA.
 - Woodside noted that the purpose of the Petroleum Activities program is to drill and install up to 10 development wells in Permit Area WA-61-L about 374 km west-north-west of Dampier, in Commonwealth waters. The Scarborough D&C EP assesses both direct and indirect environmental impacts and risks associated with the proposed Petroleum Activities Program (PAP), having regard to the nature and scale of the proposed PAP. The extraction of Scarborough gas for onshore processing is not included in the PAP for this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this PAP but will be evaluated in future Scarborough EPs as appropriate.

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- Woodside noted that requirements of subregulations 11A (1) of the Environmental Regulations to identify relevant persons for the purposes of consultations on the Scarborough D&C EP has been followed. For the broader Scarborough project, Woodside has engaged closely with relevant stakeholders (including MAC and other relevant Traditional Owner groups) since 2019. This includes consultation on relevant Scarborough activities in Commonwealth waters under the Scarborough Offshore Project Proposal, and activities in State waters under the Scarborough Nearshore Component. Following further feedback and assessment the EP has been updated (Section 5) which includes an updated consultation approach and relevant person and additional person identification process (see Section 5.4).
- Woodside noted that the Scarborough Offshore Project Proposal has been appropriately authorised under the EPBC Act through its acceptance by the NOPSEMA, in accordance with the OPGGS Endorsed Program Approval. Specifically, the 'offshore component' of the Scarborough Project will be undertaken in accordance with the endorsed program referred to in the OPPGS Endorsed Program Approval. In that regard:
- On 30 March 2020, NOPSEMA accepted the Scarborough OPP which relates to the 'offshore component' of the Scarborough Project; and
- As foreshadowed in the Scarborough OPP, and consistent with the OPPGS Endorsed Program Approval, Woodside will continue to submit environment plans to NOPSEMA in relation to petroleum activities the subject of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth) as appropriate.
- Woodside does not accept the assertion that the Scarborough Project is likely to have a significant impact on the heritage values of the Great Barrier Reef, or the basis for that assertion as identified in the letter.
- Woodside acknowledges that CCWA has self-identified as a relevant person and confirms that Woodside has consulted with CCWA. Table 5.1 in Section 5 of the SCA D&C EP has been amended to confirm that during the course of preparing the EP, CCWA self-identified and requested to be consulted on Scarborough EPs.
- Woodside noted that CCWA was provided with information relevant to the EP that is consistent with information provided to other relevant persons in addition to extra information. For example, information provided to CCWA in relation to consultation to date, includes the Consultation Fact Sheet and a response to requests for additional information relating to the SCA D&C EP, including responses to technical queries on the worst-case oil spill, greenhouse gas emissions, cumulative impacts, geotechnical information, cultural heritage, demonstration of ALARP, acceptability and environmental performance outcomes, standards and measurement criteria. Each of these points was addressed. This included providing a worst-case loss of containment modelling outcome figure, and a list of aspects considered in the D&C EP with reference to where this is addressed in the Scarborough OPP. In addition, further information has been provided in this letter in response to CCWA's request for additional information. For subsequent Scarborough EP's and those under assessment already, Woodside will continue to apply the process for identification of 'relevant persons'.
- Woodside noted that CCWA was consulted in relation to the Scarborough Offshore Project Proposal (OPP). The OPP evaluates the impacts and risks across the phases and activities of the Scarborough Project and demonstrates that they will be managed to an acceptable level. These impacts and risks will then be considered across subsequent EPs, where relevant to the scope of that Petroleum Activity. Each EP which covers a Petroleum Activities Program under the OPP, evaluates and addresses impacts and risks, appropriate to the nature and scale of the particular Petroleum Activities Program. In terms of timing:
 - Section 5 of the SCA D&C EP outlines the phased program of consultation undertaken for the Scarborough OPP:
 - Phase 1: Preliminary consultation undertaken during the impact assessment process and preparation of the OPP.
 - Phase 2: Formal consultation under the public review process of the draft OPP by NOPSEMA.
 - Phase 3: Ongoing consultation during project planning and execution and development of activity specific Environment Plans.
 - Phase 1 and Phase 2 relate to consultation that commenced in early 2018 and includes consultation undertaken for the OPP development, assessment
 and approval process. During these consultation phases, relevant persons (including CCWA) were provided with whole-of-project information.

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- Phase 3 of the consultation approach is the EP-specific consultation which covers activities specific to each of the EP's Petroleum Activities Program.
 Hence, the D&C EP consultation is activity specific. Information on other aspects of the project can be reviewed in the Scarborough OPP or, where relevant will be provided as part of consultation for the associated EP(s).
- Woodside noted that Section 7.1.3 of the Scarborough OPP which includes an assessment of GHG emissions associated with the Scarborough Development over its lifetime. Each EP which covers a Petroleum Activities Program under the OPP evaluates, and addresses impacts and risks, appropriate to the nature and scale of the particular Petroleum Activities Program set in the EP.
- Woodside noted that GHG emissions associated with the production, processing and consumption of Scarborough gas are not within the scope of the D&C EP and will be addressed in future EPs, as appropriate.
- Woodside noted that additional information is available in Section 6.7.2 of the EP regarding GHG emissions of the D&C activity, including a summarized table for the estimated GHG emissions.
- Woodside noted that since the OPP was accepted, additional reports have been published with updated projections of climate change, including the IPCC's Sixth Assessment Report (AR6) and the CSIRO and Bureau of Meteorology's State of the Climate 2020, which outlines the projected changes to Australia's climate. Overall, the more recent climate change reports strengthen the findings of previous analysis, such as the AR6 which projects a slight increase in warming for similar emissions scenarios to AR5, with a narrower range of uncertainty of these projections (more confidence rates). The slight increase in warming is a result of a range of factors including the higher estimate of historical warming in AR6 and updated estimates of climate sensitivity (IPCC, 2020). Australia's emissions projections demonstrate that it is on track to reduce emissions by up to 35% below 2005 levels by 2030 (UNFCCC, Australia's NDC 2021), in line with its NDC targets to reduce emissions by 26-28% below 2005 levels by 2030, under the Paris Agreement. The International Energy Agency (IEA) updated in its World Energy Outlook 2021. In the most ambitious scenario ("NZE"), which achieves net zero emissions by 2050 (aligned with Woodside's targets) and limits the global rise in temperature to 1.5 °C, the IEA projects further investment in oil and gas supply is needed every year to 2030, above the actual 2020 level, and with yet more investment required in other scenarios. (Figure 6.18 and Table 6.1 of World Energy Outlook 2021). In the Paris-aligned Sustainable Development Scenario, natural gas consumption in Asia is projected to grow by over 36% between 2020 and 2030 and remains above 2020 levels through 2050 (Table A.12 of World Energy Outlook 2021). The D&C EP has been updated to consider more recent climate change reports, including the IPCC's Sixth Assessment Report (AR6), the CSIRO and Bureau of Meteorology's State of the Climate 2020 and the IEA's World Energy Outlook 2021. Woodside notes that the Climate Analytics paper's focus is
- Woodside noted that the Scarborough D&C EP assesses both direct and indirect environmental impacts and risks associated with the proposed Petroleum Activities Program and that are appropriate to the nature and scale of the Petroleum Activities Program. The extraction of Scarborough gas for onshore processing, and subsequent third-party use, is not included in the Petroleum Activities Program for this EP. Any indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this Petroleum Activities Program, will be evaluated in future Scarborough EPs as appropriate.
- Woodside noted that a number of greenhouse related development alternatives are considered in Section 4.5 of the OPP, including a no development option. Woodside's approach to climate change includes corporate decarbonisation targets which will be achieved by avoiding emissions through the way facilities are designed; reducing emissions through the way facilities are operated; and offsetting emissions, by both acquiring and originating quality offsets. Please refer to our website and recently published Woodside Climate Report 2021 for further information on Woodside's corporate approach.
- Woodside has developed subsurface models of the Exmouth Plateau, which incorporate inputs from multiple surveys that have been conducted to investigate geohazards such as the area of pockmarks, and safely executed exploration drilling. These have been endorsed by external and in-house technical experts.

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- Woodside's position is consistent with published evidence that there are no indications of present-day natural leakage, and that it is not credible that environmentally significant methane releases could be caused by Scarborough development activities. As this has been assessed as a non-credible risk, it has not been included in the Scarborough D&C EP.
- On 16 March 2022, the EDO emailed Woodside. (Responses were provided by Woodside on 7 June 2023 to each point raised by EDO in this correspondence, as demonstrated below.)
- On 7 June 2023, Woodside emailed the EDO (CCWA cc) thanking the EDO for their letter on behalf of CCWA (dated 16 March 2023 and sent to Allens) regarding this EP. An attachment sent with the email included responses to items raised in the EDO's letter (dated 16 March 2023). Woodside stated:
 - Requests for further information are provided to Woodside by NOPSEMA to be addressed by Woodside during the EP assessment process. Any potential revision of the EP will be made publicly available upon publication on NOPSEMA's website.
 - Regarding the claim that information provided by Woodside falls short of requirements, Woodside stated consultation requirements have been complied with as per the regulations and ongoing regulator guidance.
 - Regarding CCWA's relevant person status, Woodside follows the regulations in relation to consultation and that Woodside follows the same consultation process whether a person is a "Relevant Person" or not.
 - In response to claims over a lack of information on the potential impacts, risks and proposed control measures for this EP, Woodside stated a previous response had addressed this and GHG emissions information had been previously provided. Woodside went on to point to relevant sections in the publicly available EP.
 - In response to the claim that CCWA is not able to determine whether the amendments in the EP have addressed its concerns without a copy of the revised EP, Woodside stated that no controls in the EP were required to be updated as a result of the claims raised by CCWA. The EP had however been updated to reflect the correspondence that had occurred i.e. the content of letters and exchanges between CCWA and Woodside.
 - Regarding indirect impacts, Woodside confirmed:
 - This EP assesses both direct and indirect impacts and risks associated with the PAP.
 The extraction of Scarborough gas for onshore processing is not within the scope of this activity.
 - GHG emissions are considered in the publicly available EP.

 Emissions are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen; no rock art will be displaced; damage to heritage sites is not anticipated; archaeological assessments and ethnographic surveys have not identified any heritage places, objects or values which will be impacted by the activities of this EP.
 - Regarding GHGs, the claim of potentially inaccurate or misleading information on warming scenarios and impacts on the Great Barrier Reef, Woodside stated it has provided CCWA with sufficient information.
 - Woodside stated in the letter that based on the information provided throughout extensive consultation with EDO and CCWA and set out within the Attachment of this email, Woodside had provided sufficient information to allow the EDO and CCWA to make an informed assessment of the possible consequences of the proposed activity and to provide Woodside with its objections or claims. Any further feedback would be accepted and considered as part of ongoing consultation.

Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Response	

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CCWA has provided feedback / objections / claims on a broad range of topics including:

- Impacts on the Dampier Archipelago National Heritage Place
- Consultation requirements under the Regulations
- Referral process of the broader Scarborough Project
- Impact and risk assessments, including cumulative impacts and impacts to benthic communities
- Quality and availability of baseline information relating to the Environmental Impact Assessment, noting potential impacts to nearby Marine Parks
- Data Appropriateness of modelling and interpretation in context of receptors
- EP activity as described in the OPP.

CCWA has requested additional information on:

Climate change impacts and risks and control measures for GHG reduction in alignment with the Paris Agreement.

Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate.

Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see **Section 7**).

No additional measures or controls are required.

Greenpeace Australia Pacific (GAP)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Greenpeace Australia (GAP) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to GAP on 29 April 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to GAP over a 13 month period.

Summary of information provided and record of consultation:

- On 8 April 2022, during the course of preparing this EP, GAP self-identified and requested to be consulted on this and other Woodside EPs.
- On 29 April 2022, Woodside responded to GAP's feedback and provided a link to the EP on NOPSEMA's website.
- On 1 June 2022, Woodside met with GAP representatives to discuss Woodside's broader business, including the Scarborough development.
- On 15 June 2022, Woodside emailed GAP:
 - Woodside advised it had further reviewed GAP's letter from 8 April 2022 and considered that GAP was a relevant person under Regulation 11A of the OPGGS Regulations, for the purposes of consultation on this EP.

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- On 29 June 2022, GAP provided a response to Woodside and the regulator that contained a number of claims /objections and requests for further information relating to the following topics (labelled as 'Grounds for refusal/amendment of the EP):
 - Woodside had not consulted with all relevant persons and incorporated their feedback into the EP;
 - GAP recommended Woodside consult with the Australian Marine Conservation Society and marine tourism representatives that operate not just on the PAA but also near the pygmy blue whale BIA. GAP also requested Woodside outline its engagement with Indigenous stakeholders.
 - Woodside had not adequately evaluated all impacts and risks;
 - GAP requests that Woodside provide the regulator with additional information about the depth of experience and potential and actual conflicts of interest
 amongst the workshop participants to ensure the regulator and public can have confidence about the hazard identification and evaluation.
 - Woodside had not adequately demonstrated that the environmental impacts and risks would be reduced to as low as reasonably practicable;
 - GAP claims the risk assessment should be updated and reassessed based on more realistic impact durations and cumulative impacts.
 - GAP provided feedback about routine light emissions and recommended that a qualified frequency and duration threshold be added to the light pollution from flaring risk. GAP also requested Woodside demonstrate that its plan for management of excessive light emissions is online with best practice.
 - Woodside had not adequately demonstrated that the environmental impacts and risks would be of an acceptable level:
 - The Environmental Performance Outcomes did not reflect levels of environmental performance;
 - The EP was inconsistent with the Blue Whale Conservation Management Plan and threatened species recovery plans; and
 - The EP was inconsistent with the principles of ecologically sustainable development, specifically the 'intergenerational principle'.
 - GAP recommended that all vessels be restricted to a maximum speed of 8 knots.
 - GAP provided feedback about routine atmospheric GHG emissions:
 - The emissions generated by the activities are inconsistent with area A.3 of the Blue Whale Conservation Management Plan
 - GAP recommended Woodside provide evidence for how the emissions are aligned with the Federal Government's emissions reduction commitment; and also requested an updated estimate of all upstream and downstream scope 1,2, and 3 emissions from the Scarborough Project and the 10 wells included in the EP; and include the upstream and downstream scope 1,2 and 3 emissions from the combined Scarborough-Pluto projects in the EP.
 - GAP recommends Woodside provide a summary of the expected offsets be provided in the EP, including when ACCUs will be generated or bought, and the accounting methods employed by the ACCUs. GAP also requested demonstration that offsets are additional, verified, measurable and permanent.
 - GAP recommended that the definitions of impacts in the EP should be science-based and demonstrate that the activities will not be inconsistent with limiting global warming to 1.5°C.
 - GAP claims the air quality risk should be re-evaluated to take into account the impacts exceeding 1.5°C. warming and woodside should make amendments to the EP.
 - The indirect scope 3 emissions should be included in the impacts and risks in the EP; and that the regulator should request the Scope 1 and 3 emissions from the 10 wells and that the cumulative emissions should be included in the impact analysis.
 - GAP recommends Woodside prepare an assessment of the climate-related impacts to the MNES coral reef systems based on direct and indirect impacts (i.e from emissions), and provide evidence if Woodside assets there is no impact.
 - GAP provide feedback on routine acoustic emissions:

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- GAP recommended that Woodside assess and report on potential cumulative impacts from all activities at the Scarborough site.
 - GAP claims that the McCauley 2004 study is out of date and that Woodside should commission a more up to date study.
- GAP claims Woodside should be taking a precautionary approach when behavioural impact and the long term consequences of those impacts are uncertain, and use more conservative estimates.
 - GAP recommends that noise pollution exceeding 120dB re 1µPa is prohibited during seasons of peak cetacean activities in the area, that is, during the April to July northern migration and the November to December southern migration.
- GAP provided feedback about physical presence and disturbance to habitat:
 - GAP disputes the 'guesstimated' impact radius (100m from each well) and strongly recommends the regulator seek additional information
 Greenpeace strongly recommends that before and after monitoring of the seabed impacts, specifically related to concentrations of suspended solids and habitat modification from turbidity and sediment settling, is conducted.
- GAP provided feedback about routine and non-routine discharges: drill cutting & drilling fluids
 - GAP recommends that pre- and post-impact surveys of the benthic fauna are conducted.
 GAP encouraged further consideration of technologies, such as a thermomechanical system, to improve waste management and reduce environmental impacts.
- GAP provided feedback about unplanned hydrocarbon release from vessel collision
 - The Environment that May Be Affected (EMBA) by the Petroleum Activities Program (as depicted in Figure 4-1) should be recalculated based on this amended worst case scenario. Should the EMBA extend into the Ningaloo World Heritage area or any of the marine protected areas following this recalculation, then that should be taken into consideration. Marine protected areas identified following the recalculation should be considered
 - Table 6-14 should be expanded to include Pygmy Blue Whale Migratory BIA
 - The risk posed to cetaceans by a worst-case scenario spill reinforces the importance of prohibiting activities during whale migration months.
- GAP provided feedback about unplanned hydrocarbon release from loss of well control
 - GAP attests it's imperative that spill and contamination modelling be conducted on the potential worst case scenario as a result of a well blowout, i.e. the sinking of the MODU.
 - GAP disputes the summary of assessment outcomes provided in Section 6.7.3 and that additional controls could be implemented to mitigate impacts.
- GAP provided feedback about physical presence and unplanned collision with marine fauna:
 - GAP recommends that vessels be restricted to a maximum speed of 8 knots (except in the event of an emergency).
 - GAP requested more information on the aspects raised in its letter to assess whether impacts have been reduced to an acceptable and ALARP level.
 GAP requested an updated version of the EP to see how its feedback has been incorporated.
- On 5 September 2022, Woodside responded with the following:
 - Woodside has followed the requirements of subregulations 11A (1) of the Environment Regulations to identify relevant persons for the purposes of consultation on its EPs. Woodside considers factors including the above criteria as part of a case-by-case approach for each EP to identify relevant persons. The EP has been updated (Section 5) to outline Woodside's consultation approach and stakeholder identification process, consistent with the criteria above.

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- Woodside has engaged with relevant stakeholders (including MAC and other relevant Traditional Owner groups) since 2018. This includes consultation on relevant Scarborough activities in Commonwealth waters during development of the Scarborough Offshore Project Proposal, and activities in State waters as part of the Scarborough Project Nearshore Component environmental review. Depending on the nature and scale of the activity, stakeholder consultation can occur during the life of an EP. Ongoing consultation enables updates on activities and a continued understanding of stakeholder views. The EP has been updated (Section 5.8 and Section 7.8.2.1) to outline Woodside's ongoing consultation approach and engagements in accordance with Regulation 14 (9) of the Environment Regulations.
- Woodside welcomes ongoing feedback on its activities from stakeholders. Information sheets on Woodside's EPs are made publicly available on the Woodside website for interested parties to review and provide feedback on. Woodside will continue to accept feedback from stakeholders during the assessment of this EP and throughout the duration of the accepted EP.
- Participants at the Environmental Risk and Impact Identification workshop were from a multi-disciplinary background with a wealth of relevant knowledge and experience and included external environmental consultants supporting the EP development with extensive experience and understanding across all topics highlighted. Table 6-2 in the EP (Rev 0) summarises the risk assessment outcomes from Section 6. The durations in Figure 2-2 relate to longevity of the consequence and not duration of the activity or impact pathway. The risk assessments in Section 6 take into consideration the total length of drilling and completions activities and present the extent of the impacts and risks. Cumulative impacts for drilling and completions activities are discussed in Section 6.2.1 of the EP. Activities within the drilling campaign are not termed 'cumulative' as activities are assessed as a whole in the EP.
- Section 6.7.1 of the EP (Rev 3, previously 6.6.1 (Rev 0)) outlines impact potential due to lighting from drilling and completions activities, including flaring during well unloading. As discussed in Section 6.7.1 (Rev 3); given the distance from shore, low sensitivity of receptors offshore (i.e. no presence of nesting turtles and low likelihood of hatchling turtles in the offshore environment), overall impact significance level for routine light emissions is expected to have no lasting effect to the high value receptors (seabirds, migratory shorebirds and marine turtles). Relating to seabirds, the PAA is offshore and away from islands or other emergent features therefore any presence of seabirds or shorebirds is considered likely to be of a transient nature only. The nearest BIA for birds within the EMBA is a breeding and foraging BIA for the wedge-tailed shearwater, located 115 km to the south-east of the PAA. Impacts to shearwaters within the BIA are therefore not expected. Given the slight impact potential in relation to the D&C activities and the PAP location, as well as the short and temporary nature of flaring, current controls in the EP are considered ALARP, with adequate Environmental Performance Outcomes and Measurement Criteria.
- Project vessels within the Operational Area are likely to be travelling <8 knots (and will often be stationary) within the 500 m zone for the MODU. At times, vessels will be transiting between wells where speed could be up to a maximum of about 15 knots, however these would only be transitory through the area. In addition, vessels adopt the go-slow buffers around marine fauna as per EPBC Regulations 2000 Part 8 Division 8.1 Interacting with cetaceans (C3.1). As discussed in Section 6.8.9 of the EP (Rev 3) (previously 6.7.9 (REV 0)) the Operational Area does not overlap with any cetacean BIAs or critical habitat and the presence of marine fauna is likely to be limited to infrequent occurrences of individuals or small groups. Therefore, given the slow speeds at which the vessels operate, the likely presence of marine fauna and the controls currently in place (C3.1) the risk of a collision is considered highly unlikely and is considered ALARP with no further controls. The EP has been updated to include consideration of a vessel speed in the ALARP assessment (Section 6.7.6; Revision 3).
- Section 7.1.3 of the Scarborough OPP includes an assessment of GHG emissions associated with the Scarborough Development over its lifetime. Each EP which covers a Petroleum Activities Program under the OPP evaluates, and addresses impacts and risks, appropriate to the nature and scale of the particular Petroleum Activities Program set out in the EP. GHG emissions associated with the production, processing and consumption of Scarborough gas are not within the scope of the D&C EP. Woodside has included additional information in Section 6.7.2 (Rev 3), previously 6.6.2 (Rev 0) of the EP regarding GHG emissions of the D&C activity, including the following table which summarises the estimated GHG emissions, considered indirect emissions of the proposed Petroleum Activity. This is estimated to be well below 1% of the Scarborough Project lifecycle GHG emissions as presented in the OPP, which were assessed as having a negligible impact significance level. GHG emissions associated with the Petroleum Activities Program set out in the EP will cease prior to the end of 2027 and are therefore aligned with Australia's emission reduction commitments.

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- Lifecycle GHG emissions were assessed in the OPP against relevant receptors and were found to be negligible, and Section 6.7.2 of the EP (Rev 3) has been updated to consider more recent climate change reports, including the IPCC's Sixth Assessment Report (AR6), the CSIRO and Bureau of Meteorology's State of the Climate 2020 and the IEA's World Energy Outlook 2021. More recent climate change reports have been published with updated projections of climate change, including the IPCC's Sixth Assessment Report (AR6) and the CSIRO and Bureau of Meteorology's State of the Climate 2020, which outlines the projected changes to Australia's climate. AR6 projects a slight increase in warming for similar emissions scenarios to AR5 (as presented in the Scarborough OPP), with a narrower range of uncertainty of these projections (higher confidence rates). The slight increase in warming is a result of a range of factors including the higher estimate of historical warming in AR6 and updated estimates of climate sensitivity (IPCC, 2020). The impact or risk evaluation described in Section 7.1.3.8 of the OPP does not change. The assessment of GHG emissions from the Petroleum Activities Program described in the EP, less than 1% of that considered in the OPP, is appropriate to the nature and scale of the impact.
- The extraction of Scarborough gas for onshore (downstream) processing is not included in this Petroleum Activities Program. Subsequent and future petroleum activities must first be authorised under the OPGGS(E)R and implemented before Scarborough gas is able to be extracted for onshore processing. Therefore, any indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this Petroleum Activities Program, but may be evaluated in future Scarborough EPs as appropriate. Section 4 of the OPP outlines the list of broader Scarborough Development activities, which will be addressed in EPs submitted to NOPSEMA for assessment.
- Woodside's approach to climate change includes time based corporate decarbonisation targets which will be achieved by avoiding emissions through the way facilities are designed; reducing emissions through the way facilities are operated; and offsetting emissions, by both acquiring and originating quality offsets. The potential use of offsets is not determined at an activity level.
- The Intergenerational Principle, as part of Ecologically Sustainable Development, was part of the criteria for acceptability that the Scarborough project as a whole was assessed against in the OPP. As demonstrated in Section 7.1.3.9 of the OPP (SA0006AF0000002, Rev 5), the project is aligned with the principles of Ecologically Sustainable Development by:
 - Providing a clean and reliable energy source, as gas is expected to play a key role in the future energy mix as a partner to renewables.
 Contributing to the International Energy Authority's Sustainable Development Scenario which shows that Scarborough gas is consistent with objectives of mitigating climate change in line with Paris Agreement targets, providing universal energy access by 2030 and reducing health impacts of air pollution.
- The Scarborough D&C EP assesses both direct and indirect environmental impacts and risks associated with the proposed Petroleum Activities Program that are appropriate to the nature and scale of the Petroleum Activities Program. The extraction of Scarborough gas for onshore processing, and subsequent third-party use, is not included in the Petroleum Activities Program for this EP. Indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this Petroleum Activities Program and may be evaluated in future Scarborough EPs as appropriate.
- Woodside does not accept the assertion that the Scarborough Project is likely to have a significant impact on the heritage values of the Great Barrier Reef.
- The Scarborough OPP (SA0006AF0000002, Rev 5; Section 8) assesses the potential cumulative impact of the Scarborough Project and other activities / developments. In addition, Woodside has assessed the cumulative impacts of the Petroleum Activities Program in relation to other relevant petroleum activities, including other Scarborough activities, that could realistically result in overlapping temporal and spatial extents. Other facilities located in proximity to the PAA were identified within of the EP (Rev 0). Given the distance between the location of the PAA and other nearby petroleum facilities and activities, no cumulative risks or impacts will credibly occur.
- Woodside has also identified and assessed the following proposed activities for WA-61-L that may overlap temporally and/or spatially (Section 6.2.1, Rev 0):
 - Scarborough 4D B1 marine seismic survey may be undertaken over WA-61-L however there will be no temporal overlap (activities will not occur concurrently)
 and therefore no cumulative impacts are predicted with this activity.

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Scarborough trunkline installation may result in cumulative impacts due to both a spatial and temporal overlap, however any potential impacts will be described, assessed and managed under the Scarborough Seabed Intervention and Trunkline Installation EP (under development).

- The threshold level for behavioural responses in marine mammals from continuous noise sources (120 dB re 1 μPa SPL) is based on the best data available, published in peer-reviewed literature, and represents a conservative, internationally accepted and applied impact evaluation threshold.
- The Thums et al. (2022) study does not support the Greenpeace hypothesis that "new research shows that the vicinity of the PAA (i.e. west of the BIA) is frequently used by pygmy blue whales as a migration pathway and also during assumed foraging, resting or breeding behaviour—in fact, it is one of the three most used areas by the species and substantial singing occurs in the area". There are no data that indicates that the area of the Exmouth Plateau overlapped by the PAA for the Scarborough Drilling & Completions represents an area where opportunistic foraging or breeding by pygmy blue whales occurs. Based on an overlap of three different metrics (occupancy, number of whales in a cell and move persistence) Thums et al. (2022) identified the most important foraging areas for pygmy blue whales offshore from Western Australia includes the area of the shelf edge from Ningaloo Reef to the Rowley Shoals. However, this foraging area does not appear to extend out to the central portion of the Exmouth Plateau where the PAA is located, and hence it is unlikely foraging whales will be present in the Operational Area.
- The assessment of potential impacts of acoustic emissions on cetaceans in Section 6.7.3 (Rev 3) of the EP (previously 6.6.3 (Rev 0)) concludes that, given the proximity of the pygmy blue whale migration BIA to the PAA (about 35 km), it is likely that individuals may transit in and around the PAA during migratory periods; however, only transient individuals or small groups are expected. Individuals transiting through the PAA or adjacent waters may display a short-term behavioural response (i.e. avoidance, minor deviation to migration route) due to the presence of the MODU and support vessel and associated underwater acoustic emissions. This impact is highly unlikely to be ecologically significant at a population level. There are no data that indicates that the area of the Exmouth Plateau overlapped by the PAA for the Scarborough Drilling & Completions represents an area where opportunistic foraging or breeding by pygmy blue whales occurs regularly.
- The use of a temporal control to avoid overlap between the activities and the northbound and southbound pygmy blue whale migration was considered in the Demonstration of ALARP in Section 6.7.3 (Rev 3) of the EP (previously 6.6.3 (Rev 0)). This control was not adopted, on the basis that it was determined not to be feasible due to total length of the drilling campaign, the planned batch drilling sequence, and successive activities dependent upon completion timing of the D&C campaign execution. Implementation of this control would introduce significant cost and schedule impacts deeming the project unviable if activities had to avoid specific time periods.
- The EP includes a number of activity specific management controls Section 6.7.3 (Rev 3) of the EP (previously 6.6.3 (Rev 0)) that will be implemented if pygmy blue whales are encountered in the vicinity of drilling operations:
 - adaptive management procedure prior to and during MODU /installation vessel moves to the next well location, during daylight hours;
 collection of data on opportunistic sightings of pygmy blue whales to determine presence and behaviour; and
 - movement of support vessels >2 km away from the MODU if foraging pygmy blue whales are observed within 500 m of the MODU.
- The PAA does not overlap with any cetacean BIAs and the presence of pygmy blue whale is likely to be limited to infrequent occurrences of individuals or small groups. Therefore, given the likely presence of marine fauna and the controls currently in place the potential impact is considered ALARP with no adoption of a temporal control.
- The area of seabed disturbance related to physical presence is limited to the physical footprint of the offshore seabed infrastructure, contingent MODU anchoring (if DP MODU is not used) and associated installation support activities (e.g. ROV, positioning equipment) and maintenance activities as described in Section 6.7.5 (Rev 3) (previously Section 6.6.5 (Rev 0)). Seabed disturbance associated with the release of drill cuttings and fluids during drilling are described in Section 6.7.7 (Rev 3) (previously Section 6.6.7 (Rev 0)).

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- Section 6.7.5 of the EP (Rev 3) has been updated with further context and to amend impact radius (from 100 m to 10 m) for the seabed disturbance associated with installation of the BOP and cementing of the conductor. Cementing of the conductor is carried out to secure the conductor in place and achieve adhesion between the conductor and subsurface. During this process cement is pumped into the space between the conductor and substrate until there is cement expression at seabed, to achieve acceptance criteria for the cement job and ensure adequate fatigue and structural support. The cement patio or excess cement at seabed is typically no more than 5 m radius, however disturbance to seabed has conservatively been calculated based on 10 m radius (formerly stated as 100 m in Rev 0 of the EP) to account for general seabed disturbance in the vicinity of the wellhead from PAP activities. Cement to seabed is minimised to ensure cement integrity down-well is maintained and reduce wastage / physical disturbance.
- Pre- and post-activity monitoring of the benthos related to the described activities is not considered warranted, as the changes to water quality and habitat are expected to be localized. The potential disturbance area represents a small proportion of the total area of deep water habitat and associated benthic communities of the PAA, that are known to be present in the wider region. Elevations in turbidity will be intermittent and temporary in nature depending on the phase of the activity (e.g., during installation, and/or ROV use etc.), and are not expected throughout the full 60 day campaign for each well. Further the sediment dispersed during these activities is naturally occurring and will settle under existing hydrodynamic conditions. Section 6.7.7 (Rev 3), previously 6.6.7 (Rev 0) has been updated to clarify the potential impacts from turbidity will be intermittent, temporary and localised.
- Section 4.5 of the EP (Rev 0) provides a description of the benthic habitat in the operational area based on a baseline study undertaken by ERM in 2013 (see OPP Appendix A), which provided a characterization of the seasonal environmental conditions across the extent and topographical features of WA-1-R (now WA-61-L), including benthic communities, sediment infauna, water and sediment quality, and planktonic communities. Results from the wet and dry season studies indicate that the WA-1-R biophysical characteristics are generally typical of the region's tropical deep-water environments. The low energy, soft bottom seafloor of WA-1-R was found to support sparse marine fauna as reported for the Exmouth Plateau (ERM, 2013). Given, the total percentage area of the Exmouth Plateau seabed habitat and benthic communities affected is conservatively estimated to be 0.01% (based on conservatively applied zone of potential ecological impact of 500 m radius per well), pre- and post- monitoring of the benthos to assess drilling discharges is not considered warranted.
- Thermomechanical systems were considered with the ALARP justification provided in Section 6.7.7 (Rev 3), (previously 6.6.7 (Rev 0)), which included consideration of health and safety exposure, schedule, cost, and environment. Noting that the use of NWMB is a contingent activity and is not planned, this consideration has been added to the ALARP assessment in Section 6.7.7 (Rev 3).
- Worst-case hydrocarbon loss of containment scenarios are identified in accordance with appropriate guidance, including NOPSEMA information papers and AMSA publications. A range of information was considered, including the onboard fuel inventory of the MODU and currently considered vessels, including subsea installation vessels. Rationale for selection of credible loss of containment scenarios is provided in Section 6.8.2 (Rev 3) (previously 6.7.2 (Rev 0)) of the EP. In accordance with AMSA's Technical Guidance for Preparing Contingency Plans for Marine and Coastal Facilities (AMSA 2015), the indicative maximum credible spill volume for vessel collisions is the volume of the largest fuel tank, which was used as the basis for risk assessment in the EP.
- The inclusion of the probability of hydrocarbon contact with the BIA has not been included as it is not considered to help inform the impact assessment and demonstration of ALARP and acceptability. The impact assessment in the EP has demonstrated that even in the event of a spill reaching those BIAs that the risk is ALARP and acceptable.
- Ignited gas release associated with a loss of well containment may cause the MODU to founder, capsize and sink. In this scenario, it is likely that fuel and drilling fluid inventories would be released over a period of time, causing contamination. This is assessed in the EP, however an instantaneous release of diesel at the surface is considered to have a more significant environmental outcome due to the greater likelihood of impact at sensitive receptors and is therefore considered worst case.
- Woodside has more than 30 years of operating experience, with a focus on safety, reliability, efficiency and environmental performance. Woodside recognises that our performance in Environmental, Social and Governance (ESG) is integral to our success. Woodside's risk and compliance processes support Woodside to

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manage risk, comply with the law and implement fit for purpose processes. Further information is available on Woodside's website including in its 2021 Sustainable Development Report.

- Further information on Woodside activities can be found on the Woodside website.
- On 9 September 2022, GAP emailed a letter to NOPSEMA (Woodside CC) regarding this EP. GAP summarised correspondence with Woodside to date; stated that it considered the information provided to GAP by Woodside and the period afforded for consultation fell short of the regulations; stated that the EP did not meet the regulations and as such urged NOPSEMA to not accept the EP. GAP requested that NOPSEMA request for Woodside to provide further information on how it has provided a reasonable opportunity for GAP to provide feedback.
- On 28 October 2022, GAP emailed Woodside (NOPSEMA CC) with further feedback on this EP and the additional information Woodside sent.
 - GAP summarised correspondence to date.
 - GAP stated that the EP should not be accepted by NOPSEMA due to Woodside not consulting with all relevant persons and incorporating their feedback into the EP; not adequately evaluating all impacts and risks; not demonstrating the impacts and risks will be reduced to ALARP and that they are not of an acceptable level; the EP is inconsistent with the Blue Whale Conservation Management Plan and threatened species recovery plans and the EP is inconsistent with the principles of ecologically sustainable development, specifically the 'intergenerational principle'.
- On 6 June 2023, Woodside emailed GAP in response to GAP's letter dated 28 October 2023, regarding this EP.
 - Woodside provided an attachment with responses to items raised in GAP's letter of 28 October 2023.
 - Woodside stated it believes it has provided GAP with sufficient information throughout extensive consultation and that given the well-informed feedback received from GAP and the length of time this EP has been open for comment, any further feedback GAP provides on the D&C EP will be accepted and considered as part of ongoing consultation.
- On 13 June 2023, GAP emailed NOPSEMA and cc'd Woodside in relation to the four Scarborough EPs currently being assessed by NOPSEMA and urged NOPSEMA to not accept the EPs due to Woodside's unsatisfactory consultation approach (insufficient time and insufficient information provided for consultation).
 - GAP confirmed its relevant person status and summarised recent communications with Woodside across the four Scarborough Project EPs. Regarding this EP, GAP acknowledged Woodside's response of 15 May 2023, GAP's auto reply on the same date and that Woodside submitted an updated version of this EP to NOPSEMA on or before 1 June 2023. Further claims made by GAP are summarised as follows:
 - <u>Submission of EPs without Notice</u> Woodside did not seek confirmation that information provided to GAP regarding the EPs was sufficient, nor did Woodside invite any response to the information by a particular date before it intended to resubmit. Further, Woodside did not notify GAP as to the imminent submission of the EPs, nor that any of the EPs had been resubmitted. GAP has had to continue to rely on NOPSEMA's website for status updates.
 - GAP stated Woodside cannot unilaterally determine what is a reasonable period or sufficient information for a 'relevant person' such as GAP without seeking and considering GAP's views. It was not clear to GAP why Woodside did not at least notify GAP of imminent resubmission of EPs as this would allow GAP to communicate to Woodside whether further time was required to respond to information. GAP stated it had previously indicated it required around a month to respond to information from Woodside. GAP stated this did not meet the Regulations nor NOPSEMA's consultation guideline.
 - <u>Failure to provide sufficient time for consultation</u> GAP stated it had not yet had an opportunity to fully consider whether it had been provided with sufficient information in Woodside's recent responses to allow GAP to make an informed assessment of the possible consequences of the activities on GAP's functions, interests or activities (as required under reg 11A(2)). This was mainly because GAP believed Woodside had not provided GAP with sufficient time to consider its responses.

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- GAP stated 'NOPSEMA's consultation guideline indicated that what constitutes a 'reasonable period' may be informed by the "nature, scale and complexity of an activity as well as the extent and severity of potential impacts and risks on a relevant persons['] functions, interests or activities" and that '[r]elevant persons may have also provided the titleholder with their views of what constitutes reasonable timeframes, their availability and or accessibility issues that should be taken into account."
- GAP considered a reasonable period to be around one month in most cases but sometimes more.
- Woodside had only allowed 4-7 business days for GAP to review and respond to additional information since the GAP representative's return from travel.
- GAP provided the timeframes it required to respond to Woodside's latest responses to each of the Scarborough EPs. For this EP it required 4 weeks from 11 July 2023.
- The timeframes were required because Woodside had sent responses on multiple EPs in short succession despite having had a significant amount of time to prepare some of its responses e.g. Woodside had had over 7 months to consider GAP's last submission on this EP and on another Scarborough EP (Drilling and Completions).
- GAP was experiencing a high volume of requests for consultation on other Woodside projects and those of other proponents due to the backlog of consultation requests following clarity on the Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 appeal decision.
- Woodside had refused to provide GAP with additional information on the Scarborough Subsea EP despite repeated requests. The first time GAP saw detail on this EP was on 30 May 2023 when it was published by NOPSEMA. GAP required considerable time to consider and respond to this complex document.
- GAP referred to Woodside's statement in several of its recent correspondences: 'given the well-informed feedback received together with the length of time the [Environment Plan] has been open for comment, any further feedback GAP provides on the [Environment Plan] will be accepted and considered as part of ongoing consultation.' GAP stated that while this statement was not clear, GAP assumed Woodside was implying that the total period the EP had been open for comment was the primary determinant of 'reasonable period'. However, GAP pointed out that NOPSEMA's consultation guideline states clearly: Information may well need to be provided in an iterative manner, as finer detail and precision is developed through the consultation process."
- GAP further stated that NOPSEMA's guideline does not clarify whether the 'reasonable period' relates to the overall period of consultation or each piece of information provided. GAP stated it had discussed this issue in previous correspondence to Woodside and NOPSEMA. GAP stated given that the period must be sufficient to allow GAP to make an informed assessment, it must tie in with the time at which sufficient information was provided i.e. if insufficient information has been provided, time will not start to run. At a minimum, it would appear that the 'reasonable period' would commence from the provision of new or additional information.
- GAP stated it believed it is more relevant to consider when information was last provided when determining whether a 'reasonable period' had been provided.
- GAP concluded by stating it believed Woodside's consultation with GAP did not meet NOPSEMA's guidelines and Woodside had not met its consultation obligations under reg 11A of the Regulations nor demonstrated the criteria for acceptance of the Environment Plans in reg 10A.
- On 23 June 2023, Woodside thanked GAP via email for GAP's letter dated 13 June 2023 sent to NOPSEMA and cc'd to Woodside. Woodside stated:
 - Based on the long history of consultation with GAP, Woodside was comfortable with the consultation between Woodside and GAP which had allowed GAP many opportunities to provide Woodside with its claims and objections as they related to the proposed activities under the four Scarborough EPs.

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- Woodside stated it remained open to consulting with GAP and additional feedback GAP provided on the Scarborough EPs would be accepted and considered as part of ongoing consultation.
- Woodside further stated that as per Woodside's ongoing consultation approach, feedback and comments received would continue to be assessed and responded
 to, as appropriate, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended
 outcome of consultation.
- On 3 August 2023, Woodside wrote to NOPSEMA sharing Greenpeace's stance on Woodside which it had posted on its website and shared with media on 2 August 2023 stating the following:
 - A public statement by Greenpeace stating its objective to "use every means possible to stop Woodside".
 - In its statement Greenpeace says: "Greenpeace will oppose Woodside's Burrup Hub at every step, and that means stopping its dangerous seismic blasting."
 - Woodside asked that NOPSEMA note the actions threatened by Greenpeace.
- On 7 August 2023, GAP emailed a letter to NOPSEMA (Woodside CC) regarding this EP. GAP stated it's relevant person status and summarised correspondence with
 Woodside to date; stated that information provided to GAP falls short of the consultation requirements; stated that it considered the consultation requirements under the
 regulations have not been adequately discharged; stated GAP's functions, interests or activities and that GAP requires additional information in relation to the EP to make
 an informed assessment of the possible consequences of the activities on its functions, interests or activities.
 - GAP stated it requires:
 - a copy of the most recent version of the Environment Plan to see how our feedback has been incorporated
 - the potential impacts and risks of the activities' greenhouse gas emissions in relation to global warming and climate change, including whether and how
 those emissions would fit within a carbon budget and emissions reduction scenarios
 - confirmation that Woodside has provided NOPSEMA with additional information on potential conflicts
 - GAP requested for Woodside to provide clarification on information relating to greenhouse gas emissions and offsets; noise pollution modelling;
 - GAP recommended Woodside set up acoustic monitors on the boundary of the Pygmy Blue Whale migration BIA.
 - GAP contends that the EP does not meet criteria for acceptance in reg 34 of the Environmental Regulations, specifically criteria 34(b) and 34(c), and encouraged NOPSEMA to investigate several listed issues regarding:
 - Reduction of greenhouse gas emissions in the EP to net zero
 - Indirect impacts of scope 3 emissions
 - Reducing risk of vessel strikes on marine fauna to ALARP
 - GAP raised a letter that was sent to NOPSEMA in late 2021 regarding methane leakage from the Scarborough gas field
 - Non water-based mud system contingency plan and reducing the oil in drill cuttings.
 - PFAS substances in planned or unplanned activities
 - GAP contends that Woodside has not adequately discharged its consultation obligations to Greenpeace under 34(g) and as such, GAP urged NOPSEMA to not accept the EP.

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- On 11 August 2023, Woodside emailed GAP noting its correspondence to NOPSEMA on 7 August 2023 regarding this EP. Woodside highlighted the continued dialogue
 and significant exchange of information that has occurred between GAP and Woodside since 2018 and stated that GAP has acknowledged this established history of
 engagement with Woodside's projects.
 - Woodside referred to the original meeting held in 2018, and GAP launching its campaign against Woodside the day after the meeting with social media, web-based and other protest-based campaigns, including unlawful entry to safety exclusion zones and boarding of Woodside's decommissioned infrastructure.
 - Woodside has and continues to accommodate Greenpeace with requests for information.
 - Woodside referred to several opportunities provided by Woodside to Greenpeace to meet with Woodside's climate team and highlighted that Greenpeace has not made a request to meet about the Scarborough EPs nor has Greenpeace disclosed to Woodside on how it would prefer to be consulted.
 - Greenpeace has not provided Woodside the opportunity to consider Greenpeace's consultation expectations or needs. This is inconsistent for example with other 'relevant persons' that have prepared and disclosed clear statements regarding their consultation preferences to Woodside, which has provided a clear understanding of consultation expectations and formed the basis of general principles for effective two-way consultation.
 - Greenpeace continues to correspond with Woodside in writing only, and therefore Woodside continues to respond in written detail to Greenpeace's claims and
 objections. Woodside summarised an extensive exchange of emails and letters since 8 April 2022 where Woodside has supplied Information Sheets and responses
 to issues, both around consultation and technical matters, in relation to all four Scarborough Environment Plans.
 - Woodside acknowledged that GAP has shown a high level of technical awareness and understanding of the Scarborough Project and this demonstrates Greenpeace's comprehensive and detailed understanding of the potential environmental risks and potential impacts posed by the activities in the EPs as well as the mitigations proposed by Woodside.
 - Woodside highlighted its advertisements and social media activity to promote Community Information Sessions and stated that as evidenced by GAP's wide-ranging use of social media in its campaigns against Woodside, this social media format is well known and accessible to GAP. Woodside highlighted that other ENGOs have taken the opportunity to attend these Community Information Sessions and had two-way dialogue with Woodside.
 - Woodside has made a genuine attempt to consult with GAP and has allowed GAP many opportunities to provide Woodside with its claims and objections as they
 relate to the proposed activities under the four Scarborough EPs.
 - With regards to the D&C EP, Woodside continues to act in good faith and continues to accept feedback from GAP to allow Woodside to consider the potential impacts and risk of the activities on functions, interests and activities and to provide input on things Woodside can do to mitigate those potential impacts and risks.
 - Given the length of time involved, the amount of information provided and the opportunity given to consult, Woodside is satisfied that an appropriate level of consultation has taken place with GAP to satisfy Reg 11A of the Environment Regulations.
 - Woodside confirmed that information has been provided that describes in detail, the activity proposed to be undertaken in the D&C EP, the location, the duration, the risks, impacts, and controls in place to minimise impacts and risks to ALARP.
 - Woodside acknowledged that despite being concerned that the protracted engagement may be aimed at achieving outcomes other than to provide input into the Scarborough Project and other related EPs, Woodside remains open to consulting with Greenpeace further, and additional feedback GAP provides on these EPs will be considered as part of ongoing consultation.
 - Woodside noted GAP's statement issued 1 August 2023: Greenpeace vows to fight Woodside's dangerous seismic blasting in which Greenpeace states it will "use every means possible to stop Woodside".
 - Woodside stated it considers it has satisfied the requirements of Regulation 11A of the Environment Regulations in accordance with the intended outcome of consultation.

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 self-identified as a relevant person and requested to be consulted on this EP and other Woodside EPs. requested more information on the activity. GAP claims Woodside has not: Consulted with all relevant persons; Adequately evaluated all impacts and risks; Adequately demonstrated that the environmental impacts and risks will be reduced to as low as reasonably practicable; 	ssessed the feedback on merit as it is EP and a summary of responses ovided to address specific claims and aised on the proposed activity, where ingages in ongoing consultation he life of an EP. Woodside notes that back may be received as part of sultation. Should feedback be received has been accepted, it will be assessed appropriate, Woodside will apply its it of Change and Revision process	Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on GAP's functions, interests or activities.
- Routine atmospheric and office children - Routine acoustic emissions - Physical presence - Routine and non-routine discharges - Unplanned hydrocarbon release - Woodside is not a fit and proper proponent.	17.0).	

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Australian Conservation Foundation (ACF) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- On 15 July 2022, the ACF requested to be consulted on the EP.
- Consultation information provided to ACF on 30 August 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to ACF over a 9 month period.

Summary of information provided and record of consultation:

Historical Engagement

- On 15 July 2022, during the course of preparing the EP, ACF self-identified, via a letter sent to Allens (NOPSEMA CC) from the EDO. Comment was provided on the proposed activity and ACF requested to be consulted on the EP. ACF included a list of topics raised in its letter that referenced the draft EP which was made available on NOPSEMA's website on 15 November 2021. The topics covered the impacts and risks of marine and avian species, benthic habitats and communities and Gascoyne Marine Park.

Sufficient Time and Sufficient Information

- On 30 August 2022, Woodside emailed the EDO regarding EDO's letter dated 15 July 2022 to Allens (who provided Woodside with the letter).
 - Woodside confirmed it was open to receiving feedback and consultation is ongoing.
 - On impacts and risks of activities in relation to marine and avian species, benthic habitats and communities and Gascoyne Marine Park, Woodside confirmed that for the PAP, an environment risk assessment was carried out in the publicly available EP. The risk assessment covered marine and avian species, benthic habitats and communities and Gascoyne Marine Park, and includes a consideration of controls, performance outcomes, standards and measurement criteria relating to risks relevant to these aspects and receptors.
 - On GHG emissions, Woodside confirmed this EP assesses both direct and indirect impacts and risks associated with the proposed activities, having regard to the nature and scale of the proposed PAP. Woodside confirmed the extraction of Scarborough gas for onshore processing, and the combustion of Scarborough gas, are not activities within the scope of this EP.
 - Additional information Woodside has provided to non-government organisations in response to similar subjects to those outlined in EDO's letter were included in Attachment A of the email.
- On 5 September 2022, the EDO emailed Woodside's lawyers, Allens, (NOPSEMA CC), re the Scarborough Gas Project EPs and referred to their letters of 15 July and 30 August 2022. The EDO requested Woodside to confirm it will carry out consultation required as per the regulations.
- On 14 September 2022, the EDO on behalf of ACF sent a letter to NOPSEMA (Allens CC) regarding the Scarborough EPs and requesting further information necessary for ACF's consultation to be properly carried out in respect of this EP. As further information had not been provided, NOPSEMA should not be satisfied that this EP met the relevance criteria and that Woodside should be notified of this
- On 27 September 2022, ACF / EDO responded via email and advised it would like to meet with Woodside to discuss the proposed activity.

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- On 29 September 2022, Woodside responded to EDO / ACF referring to their letters dated 5 September 2022 and 14 September 2022, addressed to Allens (Woodside's lawyers) and provided to Woodside by Allens.
 - In relation to the D&C EP, Woodside requested that ACF provides any further material that clarifies the possible consequences of the proposed activity for Woodside's consideration.
 - Woodside noted in the letter dated 14 September 2022, EDO identified that other environmental organisations had consulted with Woodside. Given the similarities to ACF, Woodside provided to ACF information exchanged in that consultation to confirm topics of interest raised and consulted on relevant to this EP. Woodside noted it had attempted to provide information that it assumed may be of interest to ACF to confirm issues that had been addressed and to allay potential concerns ACF may have had.
 - Woodside stated on impacts and risks of activities in relation to marine species and Marine Parks, Woodside confirmed that for the PAP), an environment impact and risk assessment was carried out in Section 6 (Rev 1) of the publicly available EP. The risk assessment included a consideration of controls, performance outcomes, standards and measurement criteria relating to risks relevant to these aspects and receptors.
 - Similarly on impacts and risks of activities in relation to GHGs, an environment impact and risk assessment was carried out in Section 6 (Rev 0) of the publicly available FP.
 - Woodside also noted the extraction of Scarborough gas for onshore processing, and subsequent third-party use, is not included in the PAP for this EP. Indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of this PAP and may be evaluated in future Scarborough EPs as appropriate.
 - Woodside stated that if ACF wished to provide further consultation information to Woodside on this EP it should do so.
- On 29 September 2022, Woodside emailed ACF regarding a proposed meeting on 10 May 2022 to continue consultation on the Scarborough Gas project.
- On 5 October 2022, ACF responded and provided its availability to meet via video conference.
- On 5 October 2022, Woodside sent EDO a courtesy email reminder regarding the 29 September 2022 correspondence on this EP.
- On 11 October 2022, Woodside provided a briefing to ACF via video conference on the proposed activity and the broader Scarborough Project. The briefing covered:
 - Scarborough project overview
 - Description of specific proposed activities (including this proposed activity) along with a map of the OA.
- On 7 June 2023, Woodside emailed ACF thanking ACF for the meeting held on 11 October 2022 which continued consultation on the Scarborough Project and each of the activities proposed under Woodside's Scarborough Project EPs. With regard to this EP, Woodside acknowledged ACF's well-informed questions about the proposed activities and ACF's input.
 - Woodside stated it provided a summary of the issues raised by ACF in the 11 October meeting together with Woodside's responses and some clarifying information (in addition to the information Woodside emailed to ACF on 12 September 2022 in response to previous correspondence from ACF to Woodside). Attachment A sent with this email contained a summary of the issues raised in the meeting and Woodside's responses including:
 - In response to Woodside confirming with certainty that there is no risk of oil spills from Scarborough reservoir as there is no liquid component to the reservoir, Woodside confirmed there has been extensive sampling and the reservoir is well understood and that risk and management responses are set out in this EP. Regarding the proposed drilling activities having any acoustic impacts, Woodside stated it has undertaken a comprehensive assessment of acoustic emissions for NOPSEMA to assess in accordance with the regulations.

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- Regarding the number of wells that will be drilled, Woodside the PAP for this EP, is proposed to consist of 8 wells with the potential for 2 additional contingency wells.
 - Regarding Woodside considering more recent studies in relation to whale shark data, Woodside confirmed all available data is included in this EP and that whale sharks were not expected to be present in the EMBA.
- Woodside stated that given the meeting, ACF's feedback received and responded to in the meeting, together with the length of time the EP has been open for comment, any further feedback ACF provides will be accepted and considered as part of ongoing consultation.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Woodside has met with ACF and provided additional consultation information on the broader Scarborough activities, including this proposed activity. ACF has provided feedback, objections and claims relating to: The activity scope and scale Alternative technologies (lower impact) Perceived impacts on marine fauna Cumulative impact assessment.	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on ACF's functions, interests or activities.

The Wilderness Society (TWS)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with The Wilderness Society for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to TWS on 30 September 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to TWS feedback over an 8 month period.

Summary of information provided and record of consultation:

Historical Engagement

- Throughout September and October 2022, Woodside was in discussions with The Wilderness Society about its Scarborough Project.

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Sufficient Time and Sufficient Information

- On 30 September 2022, Woodside emailed TWS on the proposed activity (Appendix F, Reference 1.19) and provided a Consultation Information Sheet.
- On 6 October 2022, Woodside provided a briefing to TWS on the proposed activities and the broader Scarborough Project. The briefing covered:
 - Scarborough project overview.
 - Description of specific proposed activities (including this proposed activity) along with a map of the OA.
- On 17 October 2022 Woodside emailed TWS:
 - Woodside attached a meeting summary which included responses to address specific claims and objections raised on the proposed activity, where appropriate. The following topics were covered relevant to the broader Scarborough activities, including this proposed activity:
 - The decision to consult TWS with regard to Woodside's proposed activities for the purpose of understanding how Woodside may mitigate any adverse impacts
 its activities may have on The Wilderness Society's functions, interests and activities.
 - The work undertaken to understand marine fauna populations and their migration patterns in relation to Woodside's proposed activities and the controls in
 place to mitigate any potential impacts, including, but not limited to, acoustic surveillance and marine fauna observers.
 - In response to questions raised by TWS during the meeting regarding perceived environmental impacts, Woodside confirmed that:
 - A significant number of scientific studies and findings informed the Scarborough OPP and subsequent EPs, including Woodside-supported studies undertaken
 by the Australian Institute of Marine Science and The University of Western Australia
 - Scientific studies and modelling were also used to inform the impact assessment in relevant EPs which demonstrate the activities (i.e., seismic acquisition) will be performed in a manner that prevents injury to whales, and minimises the potential for biologically significant behavioural disturbance
 - Continuous consideration of cumulative impacts for the proposed activities under each EP, as was previously considered for the OPP; and
 - Regarding TWS's queries in relation to Woodside's engagement with Traditional Owners on the relevant EPs, Woodside confirmed it has undertaken extensive engagement with the relevant Traditional Owners and Traditional Owner representative groups with respect to the proposed activities. Woodside confirmed this engagement included archaeological and ethnographic surveys, which have informed the Scarborough EPs.
 - In relation to TWS's query regarding zooplankton and any potential impacts from the proposed activities on the broader food chain, Woodside confirmed scientific studies and modelling have been used to assess and ensure an ALARP and acceptable approach to activities.
 - Woodside noted that no new concerns or queries have been raised by TWS directly to Woodside that have not already been addressed by Woodside in each of the EPs discussed.
 - Noting TWS's more general interest in carbon offsets, biodiversity and native vegetation, though outside of the scope of the Scarborough Project consultation, Woodside would welcome the opportunity for TWS to meet with subject matter advisers from Woodside to discuss the work that is being undertaken in this space.
- On 19 October 2022, Woodside received correspondence from TWS via NOPSEMA dated 14 October 2022 that contained a number of requests for information relating to the proposed activity.
 - Woodside's current methodology and application regarding offset (carbon and biodiversity), in response to the proposed activities.
 - Any remuneration or business unit KPIs to the progression of the Environmental Plan or the commencement of the related activities.
 - Confirmation that the development of a cumulative/holistic impact assessment covers the full breadth of the development, production, and decommissioning activities.

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- An outline of how dissenting scientific or technical expertise to Woodside's proposal was identified, actively sought and considered in the EP.
- Queries relating to the Seismic EP (not relevant to the D&C activity)
- On 14 February 2023, TWS emailed Woodside in response to the letter provided by Woodside on 17 October 2022.
- On 22 February 2023, TWS emailed Woodside to check its 14 February 2023 email had been received.
- On 23 February 2023, Woodside emailed TWS to confirm its 14 February 2023 email had been received.
- On 17 March 2023, Woodside emailed TWS to respond the letter from 14 February 2023 with regards to queries relating to the Scarborough Seismic activity (not relevant to this PAP).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
Woodside has received feedback from TWS during the course of consultation on a range of Woodside EPs covering the broader Scarborough activities. TWS has provided feedback, objections or claims about the proposed activity, and the broader Scarborough project relating to: - Consultation process - Industry funding, support or influence on scientific studies - Carbon and biodiversity offsets - KPIs and remuneration relating to EP process and completion	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on TWS's functions, interests or activities.

Say No to Scarborough Gas (SNTSG)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Say No to Scarborough Gas (SNTSG) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to SNTSG on 30 September 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has addressed and responded to SNTSG over an 8 month period.

Summary of information provided and record of consultation:

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- On 30 September 2022, Woodside emailed SNTSG to advise it had identified that SNTSG had referred to the Scarborough Project in an online public campaign.
 Woodside advised it had submitted an EP to NOPSEMA for Scarborough drilling and completions activities. A Consultation Information Sheet was attached. Woodside noted it had reviewed SNTSG's online public campaign in relation to this EP and noted that content generally related to impacts and risks of the Scarborough Project to climate change, greenhouse gas (GHG) emissions, rock art and Aboriginal cultural heritage. Woodside invited comments on the proposed activities and extended an offer to meet with SNTSG to assist with consultation.
- On 4 October 2022 Woodside emailed SNTSG confirming its availability to meet on 10 October 2022.
- On 5 October 2022, SNTSG emailed Woodside advising it was unavailable to meet on 10 October 2022 and requested to meet on 13 October 2022.
- On 6 October 2022 Woodside emailed SNTSG confirming its availability to meet on 13 October 2022.
- On 7 October 2022, Woodside sent a courtesy reminder to SNTSG in relation to the correspondence sent on 30 September 2022 which included a consultation information regarding the Scarborough Drilling and Completions Environment Plan.
- On 11 October 2022 SNTSG emailed Woodside in response to other Scarborough EP consultation and referenced that its focus of the scheduled meeting on 13 October 2022 was to discuss a separate specific proposed Woodside activity.
 - SNTSG noted that more information about all of the EPs will be valued but SNTSG will require more time after the meeting to give feedback and go through a thorough consultation process.
- On 11 October 2022 Woodside emailed SNTSG:
 - Woodside confirmed the purpose of the meeting is to provide context and an overview on the upcoming activities for the Scarborough Project to allow for feedback and information to be provided as relevant.
 - Woodside advised it will discuss a number of Scarborough EPs.
 - Woodside encouraged SNTSG to share any interests, claims or concerns it has in relation to these EPs to inform Woodside of appropriate measures it may take to mitigate any adverse impacts Woodside's activities may have.
- On 12 October 2022 SNTSG emailed Woodside and advised: it will endeavour to give as much feedback as possible on the day and as soon it can after the 13 October 2022 meeting.
- On 13 October 2022, Woodside provided a briefing to SNTSG on the proposed activities and the broader Scarborough Project. The briefing covered:
 - Scarborough project overview
 - Description of specific proposed activities (including this proposed activity) along with a map of the OA.
 - During the meeting SNTSG noted it will provide Woodside, early in the week commencing Monday, 17 October 2022, with a summary of concerns it has in relation to the relevant EPs.
 - During the meeting, SNTSG asked questions and provided feedback regarding:
 - What determines whether Woodside will use a dynamic positioning (DP) drilling unit or anchored rig
 - When would a DP drilling unit likely be available
 - How long Woodside would wait for a DP drilling unit before utilising an anchored rig
 - How many anchors would be required for an anchored rig
 - Has Woodside assessed marine life in the area and any impacts anchors would have

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- Are impact assessments based on a time frame were assessments independent or undertaken by Woodside
- Was research paid for by Woodside
- Has Woodside considered the release of diesel into the marine environment, the impact of spills on marine fauna reproductive cycles and what timeline is considered as part of Woodside's assessment
- Which drilling muds will be used in the proposed activities, and what factors are considered to determine whether a WBM or NWBM is used.
- On 14 October 2022 Woodside emailed SNTSG:
 - Woodside acknowledged the EPs discussed during the meeting and noted the date of week commencing 17 October 2022 for SNTSG to provide feedback.
 - At the request of SNTSG, Woodside resent the consultation information sheet as SNTSG mentioned it had not yet received it. Woodside confirmed that it emailed SNTSG and sent the consultation information on 30 September 2022.
 - Woodside encouraged SNTSG to visit the Consultation Activities page of the Woodside Energy website, where all Consultation Information Sheets can be located, and to sign up to the mailing list on the Consultation Activities page, enabling it to receive notifications when new Information Sheets are released.
- On 19 October 2022, Woodside received correspondence from SNTSG via NOPSEMA dated 29 September 2022 which advised the regulator of the engagements and consultation conducted by Woodside.
- On 16 November 2022, SNTSG emailed Woodside and included a letter. The letter contained a number of claims/objections relating to the proposed activity.
 - SNTSG provided feedback about community consultation:
 - Community consultation, stating there was no information on which communities and community groups would be consulted. Further, there was no information
 on what the process would be for incorporating feedback and then re-releasing the EPs. SNTSG asked if Woodside will publish its redrafted EPs
 - Indigenous peoples and communities have strong cultural and spiritual connections to sites within the EPs and would have an interest in management decisions impacting culturally important oceanic fauna. To what extent are they being consulted? Which communities are being consulted? And how is their feedback incorporated into the EPs?
 - Query whether certain groups had been consulted such as Australian Marine Conservation Society and marine tourism operators
 - SNTSG commented it was concerned that project work was well underway, before approvals had been granted, and that parties are acting as though environmental approvals are guaranteed.
 - SNTSG provided feedback about consistency with existing conservation plans or ecological principles:
 - SNTSG claims the plans are not consistent with ecological principles of sustainable development, particularly the intergenerational principle. It asked how Woodside plans to meet these principles.
 - SNTSG asked how the plan is consistent with the Blue Whale Conservation Management Plan and threatened species recovery plans
 - SNTSG provided feedback about independence:
 - SNTSG asked about the skills of the people at the Environmental Risk and Impact identification workshop and their ties to Woodside and any conflicts of
 interest they hold. SNTSG also asked about the lifetime for identifying environmental risk and impact identification.
 - Regarding environmental impacts and risks being reduced to ALARP, SNTSG asked who is responsible for determining what is reasonably practical and what their ties are to Woodside, and what grounds are the determinants for ALARP based upon (economic or environmental)?
 - SNTSG provided feedback on emissions:

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- Emissions caused by the project are a major concern for SNTSG and it noted the EPs ignore scope 1,2, and 3 and they cannot be ignored when considering approvals. SNTSG requested more information and figures on the lifetime of emissions of the project and emissions forecasting, consistency with conservation management plans and species recovery plans, Woodside's response to various external reports and sources, CCS and carbon offset planning, emissions projections and Scope 3 emissions.
- SNTSG provided feedback on lighting:
 - What are the impacts of artificial lights on ecological processes and sea birds? Why are the routine light emissions impacts estimated to have an impact for less than one year? Will Woodside commit to the National Light Pollution guidelines for Wildlife?
- SNTSG provided feedback on drill cuttings:
 - How thick will cuttings piles be, what will be their radius and to what extent will fine particulate matter and its effects be measured?
 - What studies have been done on the effects of particulate matter from drilling on corals
 - What are the effects of cutting piles on benthic organisms to what radius are they impacted
 - How is the level of habitat modification at 100m from each well substantiated when other studies have affected radius much higher
 - Regarding anchoring, how many anchoring sites will be used per drill site, what are the scarring effects, what is the impact of anchoring on benthic organisms
 - What are the changes to the local environment in terms of electrochemical processes, what are the changes in density and biomass of metazoan communities
 - Is there a reduction in oxygen concentration around drilling sites
 - What are the estimated turbidity levels and the impacts of these
- SNTSG provided feedback on ocean pollutants:
 - Can Woodside provide a breakdown and marine lifecycle of the components that are released into the food web, and then amplified through the food chain
 - Is there a detailed map of food chain amplification of toxins that are released during drilling activities
 - What are the long-term effects of the immune and reproductive systems of exposed birds, fish and shellfish
 - What is the combination of chemicals used in drilling mud what happens to the stabilised hydrocarbon content of wastewater and who is responsible for testing the quality and hydrocarbon levels of stabilized drill cuttings that are discharged back to the ocean.
 - What is the long-term monitoring process of localised water toxins
 - What is the estimated ratio of contaminated water to oil production over the lifetime of the well
 - Is there independent testing of mud-pit residue, how much hydrogen sulphide and ammonia are produced and at what level does metal abundance alter biogeochemical processes
 - Will a thermomechanical system be used to reduce oil on cuttings
- SNTSG provided feedback on post extraction concerns:
 - What methods for long-term monitoring of environment health in the area are in place including post-production and decommissioning
 - What potential exists for the re-introduction of contaminants into the environment, will a good practise measure of conducting monitoring of the seabed be implemented and what is the likelihood of disturbed species recolonising affected areas
 - What happens to the Blowout Preventer post-drilling

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- SNTSG provided feedback on ecosystem impacts:
 - Ecosystem impacts such as effects of climate change on interactions between marine life and the disturbance and pollution caused by the project, ecological
 parameters used to assess impacts on species / populations etc., the process of the deep-water survey, microbial communities and carrying out work during
 PBW migration season
- On 6 June 2023, Woodside emailed SNTSG and included responses to address claims and objections contained in the SNTSG online campaign material, raised during the 13 October 2022 meeting, and the 16 November 2023 correspondence regarding the proposed activity, where appropriate.
 - Relating to climate change and issues raised in the SNTSG online campaign material:
 - Woodside confirmed that concerns related to carbon and the impact on climate change from Scarborough gas are not relevant to the D&C EP.
 - Woodside confirmed the D&C EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program (PAP), having regard to the nature and scale of the proposed PAP.
 - Woodside confirmed the extraction of Scarborough gas for onshore processing is not within the scope of the activity described in the D&C EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the PAP for the D&C EP but may be evaluated in Scarborough EPs as appropriate.
 - Woodside confirmed GHG emissions associated with the D&C activity (i.e., fuel combustion from project vessels) are considered in Section 6.6.2 (Revision 0) of the publicly available D&C EP.
 - Relating to mitigating risk to marine habitats Section 6.6 and Section 6.7 of the publicly available EP assesses the risks to receptors such as marine habitats and propose controls to mitigate and manage risks / impact to ALARP and acceptable levels
 - Relating to rock art and Aboriginal cultural heritage, Woodside advised emissions from the activities covered by the D&C EP are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen. No rock art will be displaced as a result of the proposed PAP. Damage to heritage sites is not anticipated as a result of the proposed PAP. Woodside has undertaken archaeological assessments and ethnographic surveys to identify cultural heritage that may be impacted by the Scarborough development. These works have not identified any heritage places, objects or values which will be impacted by the activities covered by the D&C EP.
 - In response to claims and objections raised during the 13 October 2022 meeting:
 - Woodside confirmed a DP MODU is planned for use during the Scarborough Project and a moored MODU is included in the EP as contingency.
 - Details on typical rigs are included in Section 3 of the EP and risk assessed under Section 6. Marine life in the area (Section 4 of the EP) and any potential impacts from anchors (Section 6) are also covered.
 - Woodside confirmed impact assessments are completed for the duration of the PAP including any ongoing impacts
 - Woodside uses independent research in the assessment of risks and impacts and also commissions independent research if there is little or no information available
 - Woodside confirmed Section 6.7 of the EP (publicly available) addresses unplanned activities that may arise during the PAP including unplanned hydrocarbon release due to vessel collision. Impact assessment considers a full range of possible impacts including productivity, metabolism, behaviour, insulation and digestion (to name a few) across relevant receptors
 - As confirmed in the consultation meeting, Section 3 of the EP (publicly available) describes drilling muds and the EP considers both forms of drilling fluids (WBM and NWBM) in the risks and controls.

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- In response to the letter sent by SNTSG on 16 Nov 2022:
- Regarding community consultation, Woodside advised that consultation requirements as set out in Reg 11A of the Environmental Regulations have been complied with in relation to the consultation process for EPs Woodside detailed during its consultation meeting with SNTSG on 13 October 2022.
 - Where feedback is received which informs Woodside of new risks or measures that it may take to mitigate the potential adverse environmental impacts from the PAP, Woodside incorporates this feedback into the EP, and where appropriate will introduce additional controls to ensure risks are managed to an ALARP and an acceptable level.
 - Woodside confirmed that the PAP of the EP remains the same as what is included in the Consultation Information Sheets. Woodside advised that after
 publishing to the NOPSEMA website, EPs may change whilst under assessment prior to the final EP being accepted. Following the initial public comments
 period, an additional round of stakeholder Consultation Information Sheets and advertisements in local publications were issued during the development of the
 EP.
 - Woodside advised it has undertaken extensive consultation with relevant Traditional Owners and Traditional Owner representative groups with respect to the proposed activities.
 - Woodside confirmed the engagement included archaeological and ethnographic surveys, which have informed the Scarborough EPs.
 - Woodside confirmed it has not undertaken any of the activities which are subject of environmental approvals which are currently under assessment.
- Regarding consistency with existing conservation plans or ecological principles, Woodside confirmed the PAP is carried out in a manner consistent with the principles of ecological sustainable development.
- Woodside advised it confirmed with SNTSG during the consultation meeting on 13 October 2022 that proposed activities are consistent with the Blue Whale Conservation Management Plan.
 - Woodside also confirmed that Table 6-19 and Demonstration of Acceptability in Section 6.6.3 in the EP (Revision 0) provides the assessment of the relevant
 activities against the Blue Whale Conservation Management Plan.
- Regarding independence, Woodside confirmed the experience of the participants in the Environmental Risk and Impact Identification Workshop, which included external environmental consultants supporting the EP development. Woodside referred to Figure 2-2 of the EP (Revision 0) for a summary of duration for identifying environmental risk and impacts.
- Regarding responsibility for determining what is reasonably practicable and ties to Woodside, Woodside confirmed the details are provided in Sections 2.2 and 2.3 of the EP (Revision 0).
- Regarding emissions and ecosystem impacts, Woodside advised that concerns relating to carbon and the impact on climate change from Scarborough gas are not relevant to the EP. The EP assesses both direct and indirect impacts and risks associated with the PAP, having regard for the nature and scale of the PAP.
 - Woodside also advised the extraction of Scarborough gas for onshore processing is not within the scope of the activity described in the EP, therefore indirect
 impacts and risks arising from the onshore processing of Scarborough gas are not considered those of the PAP for the EP but may be evaluated in other
 Scarborough EPs as appropriate.
 - Woodside advised well construction activities are conducted in a number of stages, as described in Section 3.7 of the EP (rev 0 publicly available). Detailed well designs will be submitted to the Well Integrity Department of NOPSEMA as part of the approval to drill and the accepted Well Operation Management Plan (WOMP), as required under the Regulations. The WOMP describes design and controls in place to prevent any hydrocarbon loss from wells over the design life.

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- With regards to flaring time being restricted to a duration necessary to achieve well objectives, Woodside confirmed Sections 6.6.1 and 6.6.2 of the EP (rev 0 publicly available) includes information about flaring as required for the PAP. Control 1.2 contains the requirement that well unloading acceptance criteria be developed and flaring will occur to an extent to achieve these objectives. Flaring objectives / activity may differ between wells and as such flaring and emissions based on pre-existing projects are not relevant.
- Woodside also confirmed that Section 6.8 of the EP (Revision 0) Recovery Plan and Threat Abatement Plan Assessment describes the assessment that
 Woodside has undertaken to demonstrate that the PAP is not inconsistent with any recovery or threat abatement plans.
- With regards to Scope 3 emissions, Woodside referred to Section 6.6.2 of the EP which contains a risk assessment of routine atmospheric GHG emissions, including Scope 3 relevant to the PAP.
- Regarding lighting impacts, Woodside advised:
 - Routine Light Emissions associated with External Lighting on Mobile Offshore Drilling Unit (MODU) and Project Vessels are considered in Section 6.6.1 of the D&C EP (Revision 0 publicly available).
 - Woodside confirmed that the impact assessment is completed for the duration of the activities as outlined in the PAP
 - Woodside referenced Figure 2-2 of the D&C EP (Revision 0 publicly available) for a summary of duration for identifying environmental risk and impact identification.
 - The Petroleum Activity Area is about 215 km offshore and outside known Biologically Important Areas for turtles and seabirds/migratory shorebirds, therefore a specific assessment of potential impacts of artificial lighting is not required under the National Light Pollution Guidelines.
- Regarding drill cuttings, Woodside confirmed:
 - Section 6.6.7 of the EP (Revision 0 publicly available) assesses the impact of drill cuttings and drilling fluids. This impact assessment discusses factors
 influencing cuttings dispersion and pile size (in the case of riserless top hole drilling), including worst-case. The section also confirms there are no hard coral or
 other photo-sensitive benthic communities in the vicinity of the wells.
 - Section 6.6.7 of the EP (Revision 0 publicly available) assesses the impact of drill cuttings and drilling fluids. The impact assessment includes epifauna and infauna, concluding an Impact Significance Level of 'Slight (E)'. This section contains relevant references used and discusses material dispersion, transport, fate, and sediment impacts.
 - Section 6.6.5 of the D&C EP (Revision 0 publicly available) assesses the disturbance to seabed from MODU anchoring (moored MODU only). Moored MODU operations are included in the EP as a contingency, with anchoring pattern / number dependent upon the MODU used. Impact assessment considers an 8–12-point pre-laid mooring system at each well location and the disturbance footprint of these, as well as epifauna, infauna and Key Ecological Features (KEF's).
 - Section 6.6.7 of the EP (Revision 0 publicly available) assesses the impact of drill cuttings and drilling fluids, including turbidity and dispersion of cuttings / fluid plumes.
 - The impact assessment includes cuttings/retained fluids and bulk discharges of drilling fluids on relevant fauna, benthic communities, KEF's, water quality, plankton and epifauna / infauna. Dugongs and seagrass habitats are not relevant to the Operational Area for this PAP.
- Regarding ocean pollutants, Woodside advised:
 - Section 6 of the D&C EP (Revision 0 publicly available) assesses the impacts of activities relevant to the PAP, including lower order communities such as phytoplankton (cyanobacteria and other microalgae), zooplankton (such as copepods) and meroplankton, where relevant. Sections 6.6.7 and 6.6.8 in particular contain controls to reduce discharges and the impact potential of these.

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- Section 6.6.7 of the D&C EP (Revision 0 publicly available) assesses the impact of drill cuttings and drilling fluids including chemical usage and controls to reduce discharges and the impact potential of these. This section also assesses the impact of drill cuttings and drilling fluids and use of thermomechanical cuttings treatment systems for oil on cuttings reductions.
- Regarding post extraction queries, Woodside informed that decommissioning is outside the scope of this PAP and will be the subject of a future EP; and Section 3.7.4 of the D&C EP describes the well completion process, including establishment of crown plugs, pressure testing and verification of suspension barriers prior to the removal of the BOP.
- Regarding ecosystem impacts, Woodside advised that Impacts to all relevant ecological parameters are considered in the risk/impact assessments in Section 6 of the EP (Revision 0).
 - Woodside referred to Section 4.5 (Revision 0) of the EP for information on the habitats and biological communities in the Operational Area.
 - Woodside referred to Sections 6.6.3 of the EP (Revision 0) which contain an ALARP assessment of the controls to reduce noise.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
SNTSG has provided feedback, objections and claims relating a broad range of topics including: Assessment of climate change from activity Rock art and Aboriginal cultural heritage MODU type and mooring impacts Light emissions Community consultation Consistency with existing conservation plans and ecological principles (including the Blue Whale CMP) Independence of research and risk assessment processes Emissions including GHG and drill cuttings / drilling fluids Lighting Ecosystem impacts Post-extraction concerns	Woodside assessed the feedback on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate. Woodside has assessed claims and objections raised on the SNTSG public website that cover topics relevant to the proposed activity, where appropriate and provided responses to SNTSG (shown above). Woodside has provided specific information from the EP to address feedback, objections and claims, as well as Woodside's consultation approach and methodology to identify relevant persons (see Section 5.7). No amendments have been made to the EP in relation to any of the feedback, objections or claims raised. Woodside has provided responses to feedback received as shown above. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that	Woodside has consulted SNTSG in the course of preparing this EP. Woodside has assessed the claims or objections raised by SNTSG. No additional measures or controls have been put in place. Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on SNTSG's functions, interests or activities.

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	further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	
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Australian Marine Conservation Society (AMCS)

Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Australian Marine Conservation Society (AMCS) for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to AMCS on 30 September 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the AMCS with the opportunity to provide feedback over an 8 month period.

Summary of Consultation Provided and Record of Consultation:

- On 30 September 2022, Woodside identified that AMCS had referred to the Scarborough Project in an online public campaign. Woodside responded by sending a
 Consultation Information Sheet on this EP and an attachment noting that the public campaign relating to this EP generally related to themes including climate change,
 marine life and drilling, light emissions, vessel/MODU noise and strikes, assessment of impacts on BIA for turtles and other marine fauna and marine diesel fuel risk.
- On 7 October 2022, Woodside sent a courtesy email reminder to AMCS and attached a Consultation Information Sheet requesting a response by 14 October 2022.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Sea Shepherd Australia (SSA)

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Woodside has discharged its obligations for consultation under Regulation 11A(1) and consultation with Sea Shepherd Australia for the purpose of 11A(1) is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.5 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Consultation information provided to SSA on 30 September 2022 based on their function, interest and activities.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided SSA with the opportunity to provide feedback over an 8 month period.

Summary of Consultation Provided and Record of Consultation:

- On 30 September 2022, Woodside emailed SSA on the proposed activity and provided an updated Consultation Information Sheet.
- On 7 October 2022, Woodside sent a courtesy email reminder toand attached a Consultation Information Sheet requesting a response by 14 October 2022.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP should feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Research institutes and local conservation groups or organisations

National Energy Resource Australia (NERA) Collaborative Seismic Environment Plan Project (CSEP)

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

- Consultation Information Sheet publicly available on the Woodside website since July 2021.
- Woodside published advertisements in a national, state and relevant local newspapers on 21 October 2022 advising of the proposed activities and requesting comments or feedback.
- Consultation information provided to NERA on 11 November 2022 based on their function, interest and activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.

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Woodside has provided NERA with the opportunity to provide feedback over a 10 month period.

Summary of information provided and record of consultation:

- On 28 April 2022, NERA self-identified via email on a separate EP and requested information on the proposed activity. NERA noted that the Operational Area of the proposed activity overlaps with the area outlined in its Collaborative Seismic Environment Plan.
- On 11 November 2022, Woodside sent an email to NERA in relation to the Scarborough EPs. (Appendix F, Reference 1.23)
- On 22 February 2023, Woodside emailed NERA a reminder that consultation is closing soon (Appendix F, Reference 1.75).
- On 24 February 2023, NERA thanked Woodside for keeping it up to date and confirmed they have no comments and no planned activities for 2023.
- On 28 February 2023, Woodside emailed and confirmed they will provide NERA with commencement and cessation of activity notifications relating to the proposed
 activities.
- On 1 May 2023, NERA emailed Woodside on a separate project advising the Collaborative Seismic EP had been withdrawn and will no longer go ahead. NERA
 requested that the CSEP be removed from relevant person consultation.
- On 2 May 2023, Woodside emailed NERA confirming Woodside would remove the CSEP from its relevant person consultation for future EPs.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up. ther	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Other

cultural heritage and values.

Save Our Songlines (SOS) and and
Woodside has consulted in accordance with Regulation 11A with and Save Our Songlines (SOS) by providing them with sufficient information and a reasonable period of time and opportunity to make an informed assessment of the possible consequences of the activities on their functions, interests or activities in their individual Traditional Owner and eNGO capacities.
Woodside has addressed each objection or claim made by and SOS, and has implemented controls in response to topics raised by them during consultation as well as in response to objections and claims they have made. Woodside has consulted and SOS both individually and together, providing opportunities for any and all topics relating to their functions, interests and activities – and potential risks or impacts to their functions, interests and activities - to be

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discussed, including those relating to a fundamental objection to the Scarborough Project as well as those relating, in accordance with indigenous tradition, to spiritual and

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	-	Since around 2022, and so and SOS have been represented by the Environment Defenders Office (EDO), a legal team with experience in oil and projects and environment plans, who are experienced in representing clients who, in accordance with Indigenous tradition, have cultural and spiritual values.	gas t
	-	and SOS originally sought to consult on all Scarborough EPs at once and confirmed they have information and "objections" to share on al Scarborough EPs as early as September 2022. From about June 2023, this position changed and and solve and SOS expressly directed Woodside consult on individual EPs. Woodside has been ready, willing and able to consult on all Scarborough EPs (including this EP) since consultation commenced and attempted to do so [i.e. most recently 25 July 2023, 12 September 2023, 4 October 2023,] through the presentation and provision of information on all EPs as a discussion on all EPs.	to d has
	-	Objections, claims and topics relevant to and SOS and addressed by Woodside, were initially focused on the Burrup Peninsula and include focus on land-based impacts to Murujuga rock art, removal of Murujuga rock art, air emission impacts on Murujuga rock art, restriction to sites on the Burrup Peninsula and to plants and animals of Murujuga [Ref letter to Woodside 6 June 2022; letter to NOPSEMA 26 September 2022]. More recently, their focus has shifted to an interest in Sea Country and marine plants and animals [Ref for example Second Affidavit dated 7 September 2022]. As of mid-September 2023, they have identified Rosemary Island (near the Burrup Peninsula, and not near the EMBA or operations area) as being a place of particular cultural significance. Notably, the Second Affidavit dated 7 September 2023 stated that and SOS have information to share with Woodside this information "needs to be shared at the appropriate place, namely on Country". However, the Second Affidavit did not identify Rosemary Island as be a culturally significant location or the only location at which that information could be shared with Woodside.	s e and
	-	Objections, claims and topics have been unclear or inconsistent in some instances – in one meeting indicated her concern was <i>not</i> pygmy blue who (a focus of EP noise controls due to PBW distribution and behaviour) but humpback whales [12 September 2023]. At the next meeting, Woodside was criticised reflecting a position that humpback whales were a topic of specific interest to and SOS [4 October 2023]. Generally speaking, stated that whales carry important songlines, the whale Dreaming, and connection between land and sea [Second Affidavit dated 7 September 2023]. TeP contains several controls to manage potential risks and impacts to whales to ALARP and acceptable levels.	d for has
	-	Throughout consultation, it has been made clear to Woodside that and SOS hold a fundamental objection to the Scarborough Project and preference is for the Scarborough Project to be stopped [Ref: 14 March 2023; 12 October 2023 meetings; SOS website].	l their
	-	Throughout consultation, and SOS have continued to state that they have further information they wish to tell Woodside and that they say Woodside requires for its Environment Plans. However, despite Woodside offering ample opportunities for consultation, including online and in person on Cour and SOS have expressly refused to provide that information to Woodside [Ref 17 April 2023 letter and most recently 4 October 2023 mee	ntry,
	-	On a number of occasions, and so so so and so	ation
•	pro	podside has attended all meetings in listening mode to hear from and SOS and also in presentation mode, ready, willing and able to present a possible information on the activities proposed under the Environment Plan as well as on the broader Scarborough Project. In those meetings, Woodside has listened and topics raised by and SOS and has prepared and brought material in the form of presentations, tables, maps and video to share with and SOS.	ed to
•	risk rea	and SOS, the controls Woodside has in place to manage topics relating to potential impacts at some relating to spiritual and cultural connections and values that Woodside understands are relevant to an an and SOS. Woodside has also attended by, willing and able to answer questions and provide additional information as appropriate and when requested. In a number of instances, despite confirmation to bodside would present on all of the activities under the Scarborough Project, and SOS expressly told Woodside that they did not want to hear	ed that
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		Uncontrolled when printed. Refer to electronic version for most up to date information.	

	from Woodside on the Scarborough project activities and that direction, at some of those meetings, Woodside provided responses and information in relation	and SOS raised queri	es that related more broadly to other activities in	the Scarborough Project.
•	As part of consultation, Woodside has also taken time to so consultation has been incorporated into the EPs and how understands are relevant to them, including to request an and SOS have provided input in som response to queries seeking their views, measures. [12 September; 4 October meetings]	Woodside has proposed co y input by, e cases and have otherwis	and SOS how the information ontrol measures to manage potential impacts an and SOS into the proposed control measure expressed views in relation to the control measure y stated that they do not have any views to share	es or any other available measures. sures. In some instances, in
•	In a number of instances, and sos he possible to provide the information. For instance they have don't know when they will know (for example, information out from animals who speak to them [Second affid	e made statements to Wood that the Murujuga rocks ha	ve not yet disclosed to them) [Ref 14 March 202	hey do not yet know and that they 3] or information that they will find
•	During consultation, consistent with NOPSEMA's guidance there are other individuals who ought to be consulted. SOS stated words to the effect that "it is not [their] responsivith and SOS has not otherwise ider cultural connections to the environment that may be affect Woodside email 15 Sept 2023 email; EDO email 19 September 2023 email; EDO email 19 September 2023 email september 202	and SOS sibility to identify relevant p utified any other groups or in the activity, or whom	have made various references to MAC. Most re ersons on Woodside's behalf and to distribute in ndividuals who, in accordance with Indigenous to	formation to them". Consultation addition, may have spiritual and
•	In correspondence and meetings, Woodside has question Woodside, including at meetings where		be a general refusal by an analysis and they would provide information [25 July 2023; 1	d SOS to provide information to 2 September 2023].
•	Throughout consultation, and sos h information, stating most recently words to the effect: "I do		slike and mistrust of Woodside and a reluctance s no trust here, trust me lady, there is nothing" [
•	This has included reviewing statement made	, as well as topics that migh potential spiritual cultural are to the Commonwealth Ser uga Aboriginal Corporation y and Nations [Ref: UN letter 22 22], at Annual General Mederal Court and in various A	nt relate to a fundamental objection to the Scarbid connections and values; Woodside has review that estanding Committee on Environment and Complete Hearing, Perth – 20 April 2017], inform SOS to various Commonwealth government bo September 2022], the Woodside Board [Ref Juretings held by Woodside [Ref transcript Question	ved publicly available information. ommunications [Ref Opening ation provided by discussions of the control of
•	Information set out in the publicly available information shi involved in the Scarborough Project.	ows that	and SOS have an understanding of the Scart	porough Project and the activities
•	has expressed a view that MAC holds the key Lore and Culture; MAC's work including collecting environ		rdship and management of the Land and Sea C s to assist with compiling data [building a library	
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	sacred sites, including 42 islands of the Dampier Archipelago; MAC has been embraced by the community as the body for cultural knowledge and guidance which allows the community to speak with one spiritual and cultural voice and with strong cultural integrity. This means that some decisions or advice given by individuals previously, may not reflect the current and more valid cultural leadership that governs today [Ref: 20 April 2017 Opening Statement]. This position is at odds with the position being put forward by and SOS in consultation with Woodside.		
•	and SOS hold a fundamental objection to the Scarborough Project [for example: SOS website]		
•	On a number of occasions, and SOS have declined to provide the information to Woodside and have instead provided information publicly [Affidavits of September 2023] or offered to provide the information to others [Ref: letter to NOPSEMA 26 September 2022; letter to NOPSEMA 4 October 2023]		
Rea	asonable period of time		
•	is a former member of MAC. Woodside's engagement and correspondence with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018. Woodside has been consulting specifically with (as a MAC representative) date back an extended period to when discussions on the Scarborough Project commenced with MAC in around June 2018.		
•	Woodside has accommodated and SOS's initial consultation requests for at least 4 weeks [Ref 8 November 2022 letter] and then, later in the consultation, requests for 6 weeks [Ref EDO letter 24 March 2023] between consultation meetings to enable them to provide information they wish to share.		
•	August 2023, and SOS have been made aware of the Scarborough Project and desire by Woodside to commence activities under each EP. Since at least August 2023, and SOS have been made aware that commencement of activities under the Scarborough Project is imminent and that, if they would like Woodside to consider their information prior to commencement of activities, they needed to provide the information to Woodside imminently [Ref: 15 Sept 2023; August 2023; Federal Court proceedings]		
•	Woodside notes the assertion by and SOS, through their legal representatives, that consultation is 'in its early stages' [Ref: EDO letter 10 August 2023]. This statement is contrary to the history of consultation, and to their recent confirmation that consultation indeed commenced in at least 2022 [EDO 4 October 2023 letter].		
•	Having regard to the objective timeframe allowed by Woodside for consultation, the history of engagement between Woodside and and SOS and the transparency with which Woodside has communicated timeframes for consultation, Woodside has met its obligation to provide and soS a reasonable period for consultation.		
Reasonable opportunity			
•	and SOS have been provided a reasonable opportunity to consult in relation to this EP and all of the Scarborough EPs.		
•	There is a large body of correspondence, email and text messages which show Woodside's continual offers for consultation meetings for over a year. It is noteworthy that despite around 9 months of offers and attempts by Woodside to meet with and SOS (from around June 2022 – March 2023) a meeting only first took place at Hearson Cove in March 2023.		
•	There have been at least six instances where Woodside has attended an agreed meeting venue on an agreed date, ready, willing and able to consult in person with and SOS. and SOS has attended most agreed meetings, but has otherwise failed to attend or refused to attend [11 October 2022; 14 March 2023; 25 July 2023; 12 September 2023; 4 October 2023; 5 October 2023]		

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•	Since 2022, Woodside has expressed a willingness and openness to consult at any time and having regard to and SOS' preferred consultation methods [Ref: Allens letter August 2023]. To further support the consultation process, Woodside also offered to engage in fortnightly meetings with and SOS. This offer was declined. [Ref 25 July 2023 meeting]
•	Woodside has respectfully accommodated delay to meetings or rescheduling of meetings where and SOS have requested that to occur.
•	Woodside has agreed with requests from and SOS in relation to meeting protocols. This has included significant efforts by Woodside to accommodate and accommodate cultural requests by allocating female subject matter experts to prepare and attend meetings with and SOS where matters are otherwise managed by male subject matter experts for Woodside.
•	Upon request from and SOS, Woodside has also nominated a specific woman at Woodside who is able to receive culturally sensitive information on behalf of Woodside. Despite this, and SOS have declined to provide this information.
•	During the consultation, and SOS have stated that they will provide information to Woodside by way of video. Woodside waited for that information to be provided, only to be told at a later date that no video will be provided [Ref EDO emails post 25 July meeting].
•	During the consultation, and SOS have informed Woodside, and made public statements that they have further information they want to provide to Woodside for its Scarborough Environment Plans [Second Affidavit dated 7 September 2023]. Notwithstanding numerous opportunities, and SOS have not provided any further information to Woodside. At the last meeting in October, and SOS did not present Woodside with any viable way to receive the information when Woodside informed and SOS that its employees were unable to attend consultation at Rosemary Island for cultural protection and safety reasons.
•	Until around 12 September 2023, Woodside was told by and sold suggested that Hearson Cove on the Burrup Peninsula in the Pilbara was and SOS that their preference was to meet at Murujuga [Ref 8 Nov 2023 letter]. It was previously suggested that Hearson Cove on the Burrup Peninsula in the Pilbara was and SOS' preferred on-Country location to share culturally sensitive information with Woodside [February 2023]. Woodside has confirmed on a number of occasions its willingness to attend on-Country to consult with and SOS at that location.
•	In the meeting on 12 September 2023, indicated that the preferred location was Rosemary Island and that Woodside would need to make arrangements (including chartering a boat) in order for and SOS to share information. This was the first time that had requested to consult at Rosemary Island. Woodside agreed to investigate arrangements to meet on Rosemary Island and proceeded to contract a vessel, at short notice, to take 6 people to Rosemary Island for the meeting and offering an opportunity to bring with her, 3 support people on the vessel. provided a list of 8 people (including 3 lawyers and men, after indicating the island was a women's island and the story to be shared there was women's business) and demanded that Woodside, at short notice, charter a larger vessel to accommodate that additional number of people. While investigating arrangements for the meeting, it was made clear to Woodside from other Traditional Owner groups that Woodside did not have cultural permission or spiritual protection to convene a meeting on Rosemary Island. When that information was communicated to and SOS, and suppose and SOS could provide information to Woodside. When Woodside confirmed it could arrange this at short notice, withdrew the agreement and cancelled the meeting and declined to provide information to Woodside.
•	During the 4 October 2023 meeting, expressed some emotion in relation to discussing those difference on topics and information being presented by and SOS and expressed some emotion in relation to discussing those differences with the various members of the community. From the meeting and the way the message was delivered, Woodside staff apprehended that there is potential for physical and verbal exchanges between community members. Woodside considers it is not appropriate for Woodside to consult further on these issues in circumstances where Woodside will be brought into community cultural disagreements. It is also not appropriate for Woodside to expose its employees to behaviours and situations where psychosocial safety is not guaranteed, and that put the health and safety of those employees at risk, including mental and emotional health and wellbeing.
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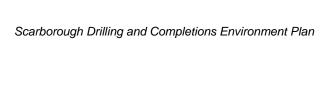
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Cor	nsultation capacities				
and SOS have been consulted in their individual traditional owner and eNGO capacities. Notably:					
•	and SOS have been consulted in their individual traditional owner and endo capacities. Notably: and SOS have been consulted in their capacities as eNGOs who have a fundamental objection to the Scarborough Project and seek to pause or stop the Scarborough project or "Stop Scarborough Gas" [Ref for example SOS website; 14 March 2023 meeting; 4 October 2023 meeting].				
	has indicated she is a Kuruma Mardudhunera woman and has indicated she is a Mardudhunera woman. Woodside has consulted with the Kuruma and Mardudhunera people including through consultation with MAC, Wirrawandi Aboriginal Corporation (<i>WAC</i>), Ngarluma Aboriginal Corporation (<i>NAC</i>) and Robe River Aboriginal Corporations. Both have been consulted in their capacities as Traditional Custodians of Murujuga in so far as their interests relate, in accordance with indigenous tradition, to spiritual and cultural heritage and values. Further, the results from an ethnographic heritage assessment undertaken for the Scarborough Project development footprint identified no ethnographic sites, values or traditional interests relevant to this EP or the Scarborough Project [Ref MAC consultation]				
•	As to individual interests,				
	 Woodside has addressed in this EP, topics expressed to be of interest to and another consultation with another updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with updated or implemented as a result of consultation with up				
	individually [Ref for example 12 September meeting], information that comes to them from ancestors from the grave [Ref for example 4 October meeting] messages that are communicated to them individually from Murujuga rocks [Ref for example 14 March 2023 meeting] and to their ability to listen and speak on behalf of all plants and animals Affidavit 7 Sept 2023]. Stories about songlines have been communicated to Woodside as being "my stories" and songlines have been expressed as being personal, as expressed in consultation [for example 4 October 2023]. Songlines have also been expressed to Woodside as having been recent and individually held, rather than ancient, group songlines, passed down in community. For example, a whale songline was expressed to Woodside as having been recently created by when she was doing certain activities at a recent visit to Rosemary Island [Ref for example 12 September and 4 October meetings – sensitive womans only information]. Information has been expressed along the lines of being "my story", "my songline" [Ref 12 September and 4 October 2023 meetings].				
	In circumstances where it has been expressed to Woodside that these stories and interests are deeply personal and personally emotionally connected to and the property and the p				

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	these circumstances, the interests conveyed by and and warmen, while respected by Woodside appear to be individual interests and presented in an individual capacity, rather than interests held by a community.
	- Consistent with the indications from other traditional owner groups, Woodside is not aware of any other individual interests of this nature (and no other individual First Nations persons have indicated to Woodside that they have any such individual or personal interests).
	Consistent with this position, and so and so have expressly stated to Woodside that their views and positions differ from that of MAC and other elders. In addition, Woodside has received communications, strong warnings and information from authorised traditional owner groups expressing a view that and so so do not speak for them and and so siews are not held by the communities.
Со	nduct in consultation
•	The process of consultation has limits. It is a statutory obligation that must be understood in a practical and reasonable way so that it is capable of performance. It cannot be one that is incapable of being complied with within a reasonable time. The consultation scheme must operate in a way that a Titleholder will be able to, with reasonable diligence, discharge its obligation to consult. The consultation obligation is an obligation that must be capable of practical and reasonable discharge by the person upon
•	whom it is imposed. Consultation does not require consent ² . In carrying out consultation, Titleholders are not required to wait indefinitely for a response. During consultation, and SOS have made serious statements including that Woodside has caused delays in meetings, has misrepresented information, is disrespectful, discriminatory and has breached protocols. In each instance, Woodside has expressed concern that and SOS have formed these perceptions of consultation, and Woodside has taken time to address and clarify the issue in each instance. Despite challenging circumstances, Woodside personnel have maintained professionalism and integrity in genuine efforts to consult with and SOS during all consultation efforts, which have been occurring since at least 2022.
•	Woodside has demonstrated a genuine openness to consult, provide and listen to information. In most instances, meetings have opened and closed amicably but, during the progress of the meeting, Woodside employees have often been subjected to hostile, offensive language and behaviours, placing unacceptable strain on Woodside personnel. This includes recent demands to meet on Rosemary Island, where cultural safety concerns were raised by the recognised traditional custodians. Woodside does not consider these outcomes to be aligned with the consultation requirement. In circumstances where Woodside has fulfilled its obligations under reg 11A, Woodside does not consider it appropriate to continue to consult further with and SOS including because of these risks. Finally, Woodside has made clear to and SOS that consultation is not to be used by parties as a mechanism to stall and delay approvals [Ref: Woodside 17 April 2023 letter], especially in circumstances where parties (as in this instance) have publicly stated a fundamental objection to the Scarborough project and stated publicly an aim including one which is to stop or pause the Scarborough Project.
Со	nsultation is complete
•	Consultation under Reg 11A is complete because sufficient information, a reasonable period of time and reasonable opportunity have been provided to and SOS in their individual Traditional Owner and eNGO capacities.
•	The fact that relevant persons have requested further consultation does not mean that Woodside has not met its obligations under reg 11A. This is underscored in the current circumstances where further consultation is not reasonable and is not required in order to comply with reg 11A:
	- persons being consulted have stated they have additional information they wish to share with Woodside for Woodside's EPs [Ref Federal Court proceedings] but then declined to share this information.
	- persons being consulted have stated that information has not yet been revealed to them, is not yet known to them, it will be revealed 'in time', but also they do not know when it will be revealed to or known by them (for instance where the wisdom of Murujuga rocks have not yet spoken to them; when animals have not yet

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¹ Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [136], [138], [89], [95]

² F2023L00998ES Explanatory Statement issued by the authority of the Minister for Resources OPGGS (E) Regulations page 28

³ F2023L00998ES Explanatory Statement issued by the authority of the Minister for Resources OPGGS (E) Regulations page 30

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provided information to them or where they at various times, receive information in visions) [Ref meetings on 14 March 2014; Affidavits dated August 2023; 12 September 2023]		
- persons have affirmed that information about certain matters can only be disclosed to people "born as biological female and living as a female in accordance with their beliefs and customary practices" [Ref Affidavit para 12]		
- further consultation exposes Woodside employees to unacceptable risk – including psychosocial, health and safety risk.		
• In all of the circumstances, consultation under Regulation 11A has been completed and Woodside has met its obligations under Regulation 11A.		
Summary of information provided and record of consultation:		
Woodside understands:		
is a Karuma Mardudhunera woman and a traditional custodian of Murujuga		
is a Mardudhunera woman and a traditional custodian of Murujuga		
- Save Our Songlines is an organisation formed by and		
Historical Engagement		
2017 – September 2022		
Woodside has engaged with the Ngarluma and Mardudhunera communities on the Scarborough project since 2018 through their representative organisations including Murujuga Aboriginal Corporation, Yaburara and Coastal Mardudhunera Aboriginal Corporation (MAC), Wirrawandi Aboriginal Corporation and Ngarluma Aboriginal Corporation.		
Woodside understands was a member of MAC since inception, was the find of MAC between 2016 and 2017 and was a board member of MAC until 11 February 2022, and took part in discussions between Woodside and MAC on the Scarborough Project. During these two-way engagements, in the three years leading up to November 2021, Woodside was not made aware of any specific concerns of (Mac until 11 February 2022, and took part in discussions between Woodside and MAC on the Scarborough Project. During these two-way engagements, in the three years leading up to November 2021, Woodside was not made aware of any specific concerns of (Mac until 12 February 2022, and took part in discussions between Woodside and MAC on the Scarborough Project. (Mardudhunera Traditional Owners) and (Mac until 12 February 2022, and took part in discussions between Woodside and MAC on the Scarborough Project.		
While a member of MAC, expressed a view that MAC holds the key responsibility for the stewardship and management of the Land and Sea Country according to the Aboriginal Lore and Culture; MAC's work including collecting environmental and heritage records to assist with compiling data [building a library] relevant to Law and Culture on sacred sites, including 42 islands of the Dampier Archipelago; MAC has been embraced by the community as the body for cultural knowledge and guidance which allows the community to speak with one spiritual and cultural voice and with strong cultural integrity. This means that some decisions or advice given by individuals previously, may not reflect the current and more valid cultural leadership that governs today [Ref Opening Statement from Aboriginal Corporation – Public Hearing, Perth – 20 April 2017].		
The first time Woodside became aware of and SOS' concerns regarding the Scarborough Project was via a number of public statements on the Save Our Songlines websites and social media (November 2021).		
After seeing the concerns, Woodside met or has attempted to meet with individuals involved in SOS to discuss the Scarborough project in other capacities and on numerous occasions, including:		
• On 15 December 2021, Woodside held a meeting at the MAC office in Dampier with the MAC Board (including and Circle of Elders, to provide an overview of the Scarborough and Pluto Train 2 projects. (Evidence of this meeting supplied with the MAC correspondence in the Traditional Custodian part of this Table).		
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•	In February 2022, and wrote to the (then) Federal Environment Minister requesting an assessment under s10 of the Aboriginal Torres Strait Islander Heritage Protection Act 1984 (Cth) regarding "threats to the Murujuga Aboriginal heritage posed by proposed Scarborough LNG" (2). This letter cited potential damage to Murujuga rock art due to industrial activity on the Burrup Peninsula and climate change. The letter also claimed that members of MAC had been subject to a "gag clause"(3).
•	On 21 March 2022, and sent an email addressed to the Woodside and requesting a meeting with Woodside on the morning of 24 March 2022
•	On 24 March 2022, there was an attempted virtual meeting over Microsoft Teams between Woodside, and
	 Woodside noted that despite its representatives being online and waiting for 35 minutes, the meeting did not proceed due to technical issues. Woodside advised that it remained keen to understand Traditional Custodian concerns, including those matters that and SOS have set out, and that Woodside remained available to meet.
•	On 24 March 2022, and SOS also emailed Woodside to advise that:
	 They were waiting to join the virtual meeting but there was no response. They were disappointed at this outcome and hoped to have a more formal meeting in times to come. Emails exchanged later that day extended Woodside's offer to hold further meetings. By this stage, there had been four attempts by Woodside to meet and discuss
	issues with and sos. This was in addition to the previous three years of consultation with and and sos.
•	On 6 June 2022, some seven months after SOS had launched its public campaign on social media, and sos wrote to the woodside regarding consultation on the NOPSEMA assessment of Scarborough offshore gas field development. The letter contained the following:
	- Industrialisation of our globally significant Murujuga cultural landscape is causing impacts on rock art through pollution, physical displacement of rock art which is highly significant within our ongoing system of Aboriginal Law and culture, damage to other heritage sites, and restriction of access to sites of cultural and spiritual significance. These impacts on our cultural heritage will all be further exacerbated by the Scarborough gas developments and related activities. After being preserved and respected for at least 50,000 years of continuous cultural and spiritual practice, Traditional Owners and Custodians are now seeing this degradation occur within our own lifetimes. As a result, industrial activity on the Burrup is already impacting our ability to practice cultural traditions and pass on our culture to future generations in accordance with our cultural obligations.
	- We assert our rights to be consulted as 'relevant persons' in relation to cultural heritage impacts of the Scarborough gas development according to the OPGGS (E) regulations. [This relates to cultural values that are nationally protected as part of the <i>Dampier National Heritage Place</i> and values yet to be described as part of the proposed World Heritage Listing for the Burrup Peninsula and surrounds] (4)
	- Given the lack of previous assessment of cultural heritage impacts and the significant uncertainties regarding these impacts a precautionary approach must be taken according to the ESD Principles in Section 3A of the EPBC Act. (5)
	- Direct and indirect impacts on cultural heritage must be assessed now, and for all stages of the Scarborough development according to Section 527E of the Environmental Protection and Biodiversity Conservation (EPBC) Act and the EPBC Act Indirect Consequences Policy. (5)
	- In order to comply with requirements to consult under the regulations, disclosure of certain information is required from Woodside.
	- Woodside's own policy, the UNDRIP and other frameworks require that Traditional Owners are provided with the right of free, prior and informed consent regarding any cultural heritage impacts.

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	- Impacts to heritage values and other potential impacts associated with the Scarborough gas development must be understood and assessed with reference to the cultural practices, beliefs and customs and unique understanding of these issues held by Murujuga's traditional knowledge holders.
	The Murujuga Aboriginal Corporation does not represent the interests of Traditional Owners seeking to protect cultural heritage (6) and Woodside's limited consultation with MAC does not satisfy the requirement for free, prior and informed consent for cultural heritage impacts, or the requirements of 'relevant person' consultation according to the above regulations.
	- Woodside notes that in the opening paragraph of this letter and and state that they are Murujuga Elders, Traditional Owners, Traditional Custodians and members of the Murujuga Aboriginal Corporation (MAC). MAC was established to preserve and protect the land, heritage and culture of the Burrup and Maitland Industrial Estate and is made up of a Circle of Elders who hold cultural authority and consist of representation form the 5 language groups.
	 Included with the correspondence was an open letter signed by several Traditional Custodians requesting (among other things) that further investment on project on Murujuga be withheld and that any further investments decisions on the Scarborough Project be paused. The letter was titled 'Open letter from Traditional Owners and Custodians of Murujuga concerning the proposed Woodside Scarborough gas development'.
•	On 22 July 2022, Woodside responded to the 6 June letter sent by and and an and an and an arrange of the Seismic Survey EP, but also stated that Woodside is open to receiving feedback and to discussing issues raised in relation to each of its Scarborough Environment Plans'.
•	Throughout July and August 2022, Ngarluma and Yindjibarndi Foundation Ltd (NYFL) offered to engage and and and to facilitate a series of up to three meetings between Woodside and and an and an and to facilitate a series of up to three meetings between Woodside and and an and to facilitate a series of up to three meetings between Woodside and and time. The proposed meeting did not progress because of a lack of response from and and an and an analysis.
•	On 2 August 2022, Woodside wrote to NYFL accepting NYFL's offer to facilitate SOS meetings.
•	On 1 September 2022, Woodside emailed and and and and Save Our Songlines with a response to the letter dated 6 June 2022.
	- Woodside confirmed it was open to receiving feedback; to discussing issues raised in relation to Scarborough EPs and noted that consultation is ongoing throughout the life of an EP. (4)
	In relation to this EP, Woodside advised the Information Sheet was available on the Woodside website which sets out details regarding the proposed activities.
	 Woodside confirmed ethnographic surveys were undertaken with Traditional Custodians to gain insights into intangible heritage including songlines, cultural practices, beliefs and customs however the surveys had not identified ethnographic sites or values in the area.(5)
	- Indirect impacts and risks arising from onshore processing of Scarborough gas were not considered indirect impacts/risks of the PAP for this EP but would be evaluated in Scarborough EPs as appropriate.(2)
	- Woodside confirmed it would continue to accept feedback on the EPs which are made publicly available following final acceptance.
	- Woodside invited and and to engage with Woodside so Woodside could further understand specific concerns or issues they may have.
•	On 26 September 2022, and Save Our Songlines emailed a letter to NOPSEMA regarding a number of Scarborough EPs, including this one:
	and Save Our Songlines raised several issues relating to Woodside's consultation requirements under the Regulations.
	and Save Our Songlines stated that they have functions interests and activities within the EMBAs of the Scarborough EPs (including this EP) which might be directly affected by the proposed activity.
	and Save Our Songlines requested that NOPSEMA refrain from accepting the Scarborough EPs (not this EP) until Woodside had properly complied with Reg 11A in relation to their functions, interests and activities and in relation to the time provided for consultation.

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	and Save Our Songlines offered to provide to NOPSEMA, further information about their functions, interests and activities that may be affected by activities under the Scarborough EPs.
	- Information to be shared by Save Our Songlines is to be treated with high sensitivity and confidentially (7).
	The letter stated that Woodside had not provided a "reasonable opportunity to provide our objections in relation to the Trunkline and Drilling EPs, and therefore cannot have responded to those objections". (8)
	and offered to share information about their functions, interests and activities regarding these EPs to NOPSEMA (9). This is an indication that as early as September 2022, and and had information and "objections" to share about all Scarborough EPs which they had not shared with Woodside.
•	On 29 September 2022, Woodside emailed and Save Our Songlines:
	 Woodside requested a meeting to share information in relation to the Scarborough Gas Project. Woodside requested to hold this meeting prior to 10 October 2022. Woodside advised it welcomed the opportunity to meet to discuss the matters raised in the letters of 6 June 2022 and 29 September 2022, to share information in relation to the Scarborough Gas Project and demonstrate how items raised in the correspondence have been addressed in the relevant environment plans. Woodside proposed that the meeting would be attended by subject matter experts and project personnel as required to answer any questions.
•	On 6 October 2022, Woodside followed up with and save Our Songlines via email and phone / voicemail.
•	On 7 October 2022, and Save Our Songlines responded to Woodside via phone to arrange a suitable date and time.
•	On 7 October 2022, Woodside and and and Save Our Songlines discussed arrangements via phone to meet on 11 October 2022.
	On 7 October 2022, and Save Our Songlines contacted Woodside via phone to advise that would be in touch to set up the meeting. and Save Our Songlines could not confirm if the 11 October 2022 meeting was proceeding as planned.
	On 10 October 2022, Woodside emailed and some and Save Our Songlines noting it had not received any further contact or confirmation of the 11 October 2022 consultation meeting. Woodside advised it was still ready and available to proceed with a meeting.
	On 11 October 2022, Woodside flew personnel to Karratha to attend the meeting with and SOS and followed up with and solven and SOS and followed up with and solven and SOS and followed up with and solven and solven solve
	On 11 October 2022, and Save Our Songlines advised Woodside via SMS that it was awaiting confirmation from its lawyers regarding the proposed meeting.
	- Woodside did not receive further contact and, despite Woodside being ready in Karratha for the meeting as agreed, this meeting did not proceed.
	None of Sos provided an explanation to Woodside as to their non-attendance at this meeting.
	On 8 November 2022, and Save Our Songlines sent a letter to Woodside in relation to the Scarborough gas project EP meetings request including this EP.
	and Save Our Songlines acknowledged Woodside's correspondence of 29 September 2022 and 6 October 2022 in respect of Woodside's consultation with relevant persons for activities related to the Scarborough Project and associated EPs. Acknowledging their understanding that Woodside's correspondence encompassed all activities with the Scarborough Gas Project including Seismic, D&C, SITI and State EPs and of the forthcoming Subsea EP. and Save Our Songlines reiterated that they were relevant persons for activities relating to these EPs and acknowledged the invitation to meeting to discuss the EPs and the answer any questions they may have.(4)
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	and Save Our Songlines stated that it was unfortunate that they had been unavailable to meet as requested, however they welcomed the opportunity to discuss their letters dated 6 June 2022 and 26 September 2022 and their concerns on the impacts and risks of the above activities. They acknowledged that Woodside may have an internal target date but that it was generally not practicable to arrange meetings with less than 4 weeks' notice and requested that Woodside provide sufficient notice for any meeting opportunities. and Save Our Songlines offered several dates on which they were available to meet and shared their preference to meet on Murujuga. and wrote to Woodside, stating "Unfortunately we have been unavailable to meet as requested" but that "we acknowledge your invitation to meet to discuss the Scarborough EPs and to answer any questions we may have" and that and and well-and selections with the seismic EP, Trunkline EP, Drilling EP and SURF EP). and solve the volume the opportunity to discuss our letters of 6 June 2022 and 26 September 2022 and our concerns as to the impacts and risks of the above activities" (being the Seismic EP, Trunkline EP, Drilling EP and SURF EP).
_	requested 4 weeks notice for meetings, and proposed a meeting in late November 2022.
•	On 22 November 2022, Woodside emailed and Save Our Songlines:
	- Woodside acknowledged the letter addressed to Woodside on 8 November 2022 that was passed on via NOPSEMA.
	- Woodside confirmed its availability to meet in Karratha on Tuesday 29 November 2022 or a date suitable to and SOS.
•	On 24 November 2022, and 3 November 2022 and 8 November 2022 that they had information and "objections" they were ready to share regarding the Scarborough Project, and and stated they would not proceed with consultation until there was clarification around the scope and purpose of the meeting and until Woodside confirmed their status as "relevant persons" and Woodside provided requested information. Woodside confirmed their status as "relevant persons" and Woodside provided requested information. The proposed meeting date. Despite recording in their correspondence on 26 September 2022 and 8 November 2022 that they had information and "objections" they were ready to share regarding the Scarborough requested information around the scope and purpose of the meeting and until woodside confirmed their status as "relevant persons" and Woodside provided requested information. The proposed meeting date. Despite recording in their correspondence on 26 September 2022 and 8 November 2022 that they had information around the scope and purpose of the meeting and until woodside confirmed their status as "relevant persons" and Woodside provided requested information. The proposed meeting date. Despite recording in their correspondence on 26 September 2022 and 8 November 2022 and 8 November 2022 that they had information and "objections" they were ready to share regarding the Scarborough end of the scope and purpose of the meeting and until woodside confirmed their status as "relevant persons" and Woodside provided requested information. The proposed meeting date. The proposed meeti
	- Acknowledgement from Woodside as to relevant person status for all EPs associated with the Scarborough Gas Project (4).
	- Provision of necessary information about the proposed activities and the anticipated impacts to allow for informed comment and input to be made as part of the relevant person consultation process. As a minimum they requested draft copies of the Scarborough EPs and associated technical and other information and any studies, research or other information held by Woodside relating to:
	- cultural values (not limited to ethnographic sites) including marine fauna of cultural significance (5)
	- impacts and risks of industrial pollution from gas processing on cultural heritage at Murujuga (2)
	Purpose of meeting, indicating they would be happy to meet when information requested in points above was received and they understood Woodside's assessment of them as relevant persons (4). They indicated that the initial meeting would be for introductions and an opportunity for and Save Our Songlines to ask questions and obtain information they require to determine the consequences, impacts and risks of the proposed activities so that consultation could commence. The issue of protocols around gender restricted information was raised and they stated that they would not be able to provide substantive information about their functions, interests and activities at the first meeting proposed (7).
•	On 2 December 2022, Woodside emailed and Save Our Songlines and included responses to address the items raised on 24 November 2022, where appropriate. Woodside reiterated its availability to meet and provided an option for any date in December 2022. and Save Our Songlines did not respond to this offer.

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	- Woodside reiterated that it is open to continue consulting, receiving feedback and discussing concerns in relation to Woodside's Scarborough Environment Plans (EPs). Consultation is ongoing and feedback will continue to be accepted throughout the life of the EP, including while it is being prepared, while it is under assessment as well as after acceptance, while the EP remains in force.(4)
	 Woodside confirmed its arrangements to meet and consult that have been ongoing since November 2021, and it remains open to continue consulting in relation to the Scarborough EPs.(4)
	- Woodside advised it is available to meet with and Save Our Songlines on any date in December 2022 in Karratha. Woodside requested confirmation of availability to meet by 9 December 2022. (4)
	- Woodside provided a link to the Consultation Information Sheets for all Scarborough EPs, which had been available on Woodside's website since September 2022, to assist in preparing for the meeting
	- Woodside noted there has been ample time and information available to inform feedback on our proposed Scarborough EPs. Woodside requested and Save Our Songlines provide feedback no later than at the proposed meeting in December 2022 (8).
,	Woodside noted the letter dated 24 November 2022 made reference to arrangements which would enable and Save Our Songlines to share relevant information such as matters that are restricted to women or men only. Woodside requested for what arrangements are required to enable them to share this information by 9 December 2022. (7)
	- Despite Woodside being available to meet any time in December and the date of December 9 being suggested, there was no response from and Save Our Songlines so a meeting could not proceed (8).
	On 4 January 2023, Woodside emailed an option for any date in January 2023. On 4 January 2023, Woodside emailed an option for any date in January 2023.
•	On 13 January 2023, and Save Our Songlines emailed Woodside:
	and Save Our Songlines confirmed it would like to meet with Woodside, but reiterated its requests contained within its 24 November 2022 correspondence.
	and Save Our Songlines stated it can advise of its availability for a meeting once the information requested above is provided.
	On 19 January 2023, Woodside emailed and Save Our Songlines. Woodside included the following responses to address the items raised, where appropriate:
	- Woodside reiterated it is open to continue consulting with and Save Our Songlines, receiving feedback and discussing their concerns in relation to Woodside's Scarborough Environment Plans (EPs) in Commonwealth and State waters (collectively referred to as the Scarborough EPs). (4)
	- That consultation on the Scarborough EPs began when Woodside provided and Save Our Songlines with consultation information on the Scarborough EPs.(8)
	- That Woodside has made every effort to meet with an an and Save Our Songlines to understand their claim of relevance and to develop a comprehensive understanding of potential impacts to their functions, interests or activities. (8)
	- That it has been trying to arrange a meeting with and Save Our Songlines since November 2021 to discuss the Scarborough EPs, including a representative travelling to Karratha for a planned meeting on 11 October 2022 and making representatives available for a meeting on 29 November 2022. (8)
	- Woodside reiterated its availability to meet and provided an option for any date in January or early February 2023 (8).
	On 8 February 2023, Woodside was copied into correspondence sent from the Environmental Defender's Office (EDO) to the WA State Minister for Mines and Petroleum regarding a separate Environment Plan under State Regulations. Copies of previous correspondence between Woodside and and Save
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	ur Songlines were attached to the email. This included a detailed response from Woodside dated 5 January 2023 which responded to claims and objections made in lation to spiritual and cultural values.
•	n 8 February 2023, the EDO (acting on behalf of SOS) emailed Woodside and stated that the earliest its clients would be able to meet would be the weeks ommencing 13 and 20 March 2023.
•	and Save Our Songlines. Woodside reiterated its availability to meet and, based on dates suggested ithin the 8 February correspondence, provided and Save Our Songlines with confirmation it was available to meet on the suggested dates in arch 2023. (1)
•	n 24 February 2023 Woodside sent and Save Our Songlines a follow up email. Woodside reiterated its availability to meet.
•	and Save Our Songlines) emailed Woodside and advised its client was available to meet on 13 and 14 March 2023. EDO requested that Woodside nominate a female staff member who could receive "highly sensitive" cultural information at the meeting, which conditions to mean that woodside and Save our Songlines intended to share cultural information at the meeting.
•	n 28 February 2023 the EDO (acting on behalf of and the secure a meeting.
•	n 1 March 2023 Woodside emailed and Save Our Songlines (and CC to EDO) to propose the meeting time and location for 14 March 2023 doodside also nominated a female staff member to receive cultural information (7).
•	n 7 March 2023 the EDO (acting on behalf of and some and Save Our Songlines) emailed Woodside to confirm the meeting time and location for 14 March 2023.
•	n 8 March 2023 Woodside emailed the EDO, and some and Save Our Songlines with a proposed agenda for the 14 March 2023 meeting and requested ey advise if there were any particular issues they wished to discuss during the meeting. (8)
•	and Save Our Songlines with further logistic and meeting protocol details for the proposed meeting of the proposed meeting of the proposed meeting of the meeting to respect privacy, safety and cultural values (7).
•	EETING: On 14 March 2023 (summarised in 16 March 2022 email), Woodside met with EDO, and Save Our Songlines on-country and discussed e proposed activity. Despite Woodside's continued efforts and offers to meet since at least September 2022, this meeting represented the first time Woodside and and Save Our Songlines had met in person since the establishment of Save Our Songlines in November 2021. (4, 8)
	oodside provided an overview of the Scarborough activities (Seismic EP, Subsea EP, D&C EP, SITI EP (Cth and State)).
	eedback from and Save Our Songlines (at the on-Country meeting):
	and Save Our Songlines told Woodside that the proposed activities gave them a sick feeling and the activities should be stopped (10). and Save Our Songlines also informed Woodside that, in their view, there is nothing that could be done by Woodside to progress with the proposed Scarborough activities in a way that could minimise impact to and Save Our Songlines' functions, activities and interests or that would be respectful to its culture and country (10). Woodside Response (at the on-Country meeting):
	Woodside agreed not to share cultural details which were shared at the 14 March 2023 meeting (7).
	and noted there is information that is not yet known to them (for instance, wisdom that Murujuga rocks have for the past and future) (9).
•	n 16 March 2023, Woodside emailed EDO, and and Save Our Songlines to advise that:
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	-	It appreciated the request for Woodside to attend the meeting with open hearts, deep listening and respectful conversation and that it would intend to continue this approach to engagement.
	-	Woodside's consultation process is ongoing through the environmental approval process and when an activity is being performed and that Woodside looks forward to continuing its discussions with and Save Our Songlines in the future (8).
	-	Woodside is open to consulting further with and are open to the continuing engagements regarding the Scarborough activities (8). Woodside noted this was notwithstanding comments made at the meeting by that the proposed activities gave them a 'sick feeling' and should be stopped.
	-	Woodside provided responses to specific actions taken during the meeting, including:
	-	A request for Woodside to provide background information on the "why" behind the Scarborough activities. Woodside responded that the Scarborough Gas Project helps play a role in the global energy transition, including helping neighbouring Asian countries take action on emissions reduction and advised there is further information on Woodside's website.
	-	A request for Woodside to check with MAC whether MAC's ethnographic survey can be shared with and save Our Songlines. Woodside advised that the ethnographic survey is held by MAC and Woodside does not have permission to share it (3).
	-	A request for Woodside to confirm whether fracking would occur in relation to the Scarborough activities. Woodside confirmed that no fracking would be undertaken as part of the proposed Scarborough activities (1).
•		24 March 2023, the EDO (acting on behalf of and some and Save Our Songlines) provided a letter to Woodside which copied NOPSEMA, DMIRS and the Minister for Mines and Petroleum:
	-	The letter acknowledged that Woodside had provided information on all relevant Scarborough EPs (Seismic, Drilling, SITI and Subsea), and confirmed that and raised "particular concerns about the impacts that underwater activities that form part of the EP activities might have on their functions, interests an activities". This confirmed that the parties were consulting on all EPs at this stage.
	-	The letter detailed a response to the 14 March 2023 meeting and Woodside's 16 March 2023 email, and covered the range of Scarborough EPs (Seismic, D&C, SITI, Subsea and State EP), including this proposed activity. The EDO noted its client's concerns relating to:
	-	The summary of the meeting, stating the functions, interests and activities of their client were distinct from those of Murujuga Aboriginal Corporation and that their stories were not told as a part of any consultation with MAC (6). The raised concerns about impact of underwater activities, impacts related to greenhouse gas and Murujuga industrialisation.
	-	Clarification of its client's position, that Woodside had mischaracterised their clients position. Their view is that Woodside should not undertake the Scarborough Gas Project because of the harm it will cause and that is different to the conclusion that there is 'nothing that can be done' to minimise impacts or be respectful to our clients, their culture and their country (10) Their clients regard genuine consultation on the proposed EP activities an important demonstration of their respect for their functions, interests and activities. The letters assert that they consider that the consultation process has just commenced (11).
	-	Communication of relevant person status – the EDO stated that their clients should be recognised as relevant persons individually and not only Save Our Songlines, the foundation their clients founded.(4)
	-	Acknowledgement of response to questions arising at the meeting of 14 March 2023 (1), that Woodside had followed up their requests and provided a link to Woodside's publicly available website and advised that the ethnographic survey was held by MAC and Woodside did not have permission to share it.(12)
		The letter noted that the EDO's clients would review the consultation information provided, and that it anticipated its clients would require approximately six weeks

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-	The letter requested Woodside not submit the draft environment plan until consultation was complete.
reite	29 March 2023 Woodside emailed the EDO, and save Our Songlines (CC to NOPSEMA) in response to the 24 March 2023 letter. Woodside erated its responses to topics raised during the meeting and in previous correspondence, relevant to the proposed activity. The response included the following ponses which are summarised as follows:
In r	egards to additional or new information:
-	Woodside advised it has a process in place for the life of an EP that allows the EP to be updated to include additional or new information or feedback that is received after an EP is submitted. This is done through a "Management of Knowledge" process. This means that feedback or information provide in future meetings can still be taken into account and, where appropriate, can be incorporated in the EP during the life of the activity.
-	Woodside advised that following the meeting, based on the information provided, no updates were required to the EP via the Management of Knowledge process.
-	In regards to Functions, interests and activities
-	Woodside acknowledged that it had been advised that a substant and Save our Songlines' functions interests and activities are distinct from those of MAC and that it was interested to learn about this further (6).
-	In response to a request for the ethnographic survey undertaken by MAC, Woodside reiterated that it has no authority to provide this information. Given a request representation of the ethnographic survey was being undertaken, Woodside suggested that may have contacts at MAC to request a copy of that survey (12).
-	Woodside advised that as to an activities and Save Our Songlines' functions, interests and activities, it continues to invite these to be shared with Woodside so it can consider the likely impacts and risks of the EP activities on these functions, interests and activities and what Woodside can do to lessen or avoid those impacts (8).
-	Woodside confirmed that as and Save Our Songlines' were not prepared to share some information with Woodside, it remains open to hearing from them when this is known, and it is ready to be shared (8, 9).
-	In regards to Minimising impacts to functions, interests and activities, Woodside reshared its interpretation of the take-aways from the meeting in relation to underwater activities, Greenhouse gas emissions and industrialisation of Murujuga (2)
-	In the meeting, Woodside provided an overview of the Scarborough Project and potential impacts of activities on whales (13).
-	Emissions from the activities covered by the Commonwealth EPs are of a scale that no credible impact pathway to their onshore cultural interests is foreseen. This has been the subject of separate correspondence (2).
-	In relation to the detail of the EPs and information accessed and provided, the meeting provided an overview of the Scarborough Project and followed volumes of previous correspondence on the Scarborough Project. Previous correspondence indicated that a large volume of information on the Scarborough Project had been accessed, read and considered. The correspondence showed an informed and thorough understanding of the various Scarborough activities and the Scarborough Project. (8, 9)
-	In relation to Consultation in general (8), Woodside advised it has continued to consult with and Save Our Songlines' and continues to invite further consultation.
-	In relation to Relevant persons. (4), Woodside advised that the Commonwealth approval process requires Woodside to consult with "relevant persons".
-	Woodside has previously explained the approval process relating to the concept of "relevant persons" and noted that, at the relevant time consultations are included under a category of "relevant persons" in EPs. Woodside generally applies this category at a stage when they are trying to understand more about a person's functions, interests and activities and also the impacts of Woodside's activities on them.
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	- Woodside reiterated that there is no need for it to categorise persons as relevant in order to consult with them.	
		ons with relevant persons. Is open and Save Our Songlines.
	- In relation to Further consultation (8, 9), Woodside noted that meeting and Save Our Songlines' correspondence, it meeting and will require approximately six weeks to read into materials and prepare for a meeting.	would like to organise another
	 Woodside requested for and save Our Songlines' to advise its preferred times for the next meeting, noting previous meeting. 	the time taken to arrange the
	- Woodside advised it is available to meet in the week commencing 8 May 2023 or earlier.	
	- The agreed meeting protocol was shared again, including there being no audio or visual recording of meetings.	
•	 On 29 March 2023, the EDO responded acknowledging receipt of Woodside's email, noted the invitation for further consultation and and would respond in due course. 	advised it was seeking instructions
•	 On 6 April 2023, the EDO sent a letter to NOPSEMA and copied Woodside with a subject of "Relevant interested person" consultation. Trunkline Installation 4D B1 Marine Seismic Survey Environment Plan (sic)". The letter suggests that consultation with the EDO's clied Our Songlines (SOS) has not been completed and therefore the Scarborough 4DMSS Seismic EP should not be accepted. 	
•	 On 17 April 2023, Woodside responded by email to a letter from the EDO dated 6 April 2023 addressed to NOPSEMA and copied to 	Woodside. Woodside stated:
	The letter sent by EDO dated 6 April 2023 suggests that consultation with the EDO's clients and and Save 0 completed and therefore the Scarborough 4DMSS Seismic EP should not be accepted by NOPSEMA (8).	Our Songlines (SOS) has not been
	 Woodside provided notes giving additional context in relation to items raised in the letter, including in relation to Woodside's representation and sold in the Scarborough Project, including the Scarborough 4DMS 	
	 Woodside confirmed the Scarborough 4DMSS Seismic EP was submitted for approval on the grounds it met the regulations and effort is documented within the EP, demonstrating provision of sufficient information, time and opportunity to consult over an extension. 	
	 Woodside reiterated the process for consultation remains open post EP approval and that it has consistently offered an open invalid and SOS to provide feedback to allow Woodside to consider the potential impacts and risks of the activities on functions, interest input on things Woodside can do to mitigate those potential impacts and risks. (8) 	
	 An attachment of 5 pages sent with this response to NOPSEMA sets out the history of Woodside's extensive engagements with It states that since June 2018, Woodside has undertaken 82 substantial engagements relating to the Scarborough Project included Custodians and their representatives (8). 	
	 Woodside also outlined details about correspondence and the opportunities and invitations Woodside has attempted to provide these have not occurred (8). 	for consultation to occur and why
	 Woodside closed the letter by stating Woodside would be pleased to discuss the notes contained in this letter and the issues rai NOPSEMA. 	ised in the Letter from EDO with
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activities such as birthing, initiation or other significant activities are performed. (5, 6)

•	On 8 May 2023, the EDO emailed Woodside to advise they had not had any response to date, and were writing again to enquire whether Woodside wished to propose dates that can put to their clients for consultation regarding another Scarborough EP.
•	On 9 May 2023, Woodside emailed and Save Our Songlines via the EDO reiterating Woodside's willingness to engage in ongoing consultation on another EP (Seismic) and other Scarborough EPs; On proposed meeting dates in May either on country or remotely, noted draft guidance from NOPSEMA regarding Managing gender-restricted information, and included a draft agenda (8).
•	On 9 May 2023, Woodside emailed and Save Our Songlines, with respect to the SITI EP and included responses to relevant objections, claims and additional information raised on 6 June 2022, 26 September 2022 and 24 November 2022:
	- Woodside confirmed it has conducted an ethnographic survey to support the development of EPs for the Scarborough Project (Mott 2019, UWA 2021, McDonald and Phillips 2021, Nutley 2022a and 2022b). These works have not identified any heritage places, objects or values which will be impacted by the activities covered by the SITI EP. An ethnographic survey determines the cultural values which are associated with a particular area, feature or object. Representatives from the Mardudhunera, Ngarluma, Yaburara, Yindiibarndi and Wong-Goo-Tt-Oo Peoples—all five Indigenous groups represented by MAC—participated in these surveys

- Woodside advised Archaeological assessments have been made over the ancient landscape, being the extent of the continental shelf which was previously exposed during human occupation. This includes an Australian-first assessment of the archaeological perspectivity along the trunkline route conducted with the support and consultation of Traditional Custodians (UWA 2021). An executive summary is available on Woodside's website at https://www.woodside.com/docs/default-source/sustainability-documents/indigenous-peoples/cultural-heritage/scarborough-pipeline-cultural-heritage-assessment-exec-summary.pdf (5).

(Mott 2019, McDonald and Phillips 2021). Participants were not restricted in the types of heritage or other values they were encouraged to identify, but typical results from surveys of this nature might include songlines, ceremonial places such as 'thalu' sites for managing environmental resources, or places where

- Woodside advised it has had all of its submerged heritage work assessed by an expert underwater archaeologist for gaps in our processes (Nutley 2022a), as well as a review of Side Scan Sonar data to confirm whether archaeological sites could be identified on the seabed (Nutley 2022b). (5)
- Woodside advised that Section 4.9.1 of the SITI EP includes a summary of these assessments. The assessments include the relevant areas sufficient to assess the cultural values of the Operational Area for this EP. (5)
- Woodside confirmed that none of Woodside's agreements with Traditional Custodians include "gag clauses" or restrictions on voicing opinions on its projects. Woodside has supported Traditional Custodian representative institutions to access relevant information and independent expert advice so that they are enabled to provide informed and considered feedback on the Scarborough project. (3)
- Woodside advised that the principles of Free, Prior and Informed Consent (FPIC) are based in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) where it is envisaged as a communal right of Indigenous communities and secured through consultation with representative institutions utilising traditional decision-making mechanism such as deferring to MAC's Circle of Elders. Woodside is guided by UNDRIP under its First Nations Communities Policy and has consulted representative institutions including MAC for a number of years (6).
- Woodside confirmed it has made several attempts since November 2021 to engage with Save Our Songlines, and and with a meeting held on Tuesday 14 March 2023. Woodside confirmed that Woodside is open to receiving feedback on the SITI EP (8).
- Woodside confirmed that concerns related to carbon and the impact on climate change from Scarborough gas are not relevant to the SITI EP (2). This EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program, having regard to the nature and scale of the proposed Petroleum Activities Program (2, 5).
- Woodside advised the proposed Petroleum Activities Program is outside of the National Heritage Place and the anticipated boundary of the Murujuga Cultural Landscape World Heritage Property (2).

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- Woodside confirmed the extraction of Scarborough gas for onshore processing is not within the scope of the activity described in this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the Petroleum Activities Program for this EP but may be evaluated in other Scarborough EPs as appropriate (2).
- Woodside confirmed emissions from the activities covered by this EP are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen. Woodside advised that no rock art will be displaced as a result of the Scarborough Project (2).
- The activities covered by this EP are located in Commonwealth waters and will have no impact on access to sites of cultural and spiritual significance (2).
- Woodside advised it has resourced Traditional Custodian representative institutions to access relevant information and independent expert advice so that they are enabled to provide informed and considered feedback on the broader Scarborough activities. A number of documents containing cultural heritage information, including heritage assessments, contain the intellectual property of Traditional Custodians or sensitive information that may be culturally restricted. For these reasons, Woodside does not disclose this information. This information is held by representative institutions and may be disclosed by them where they consider in appropriate to do so. (5)
- Woodside provided a link to the Scarborough Project Cultural Heritage Management Plan which is a publicly available document and can be found at: https://www.woodside.com/docs/default-source/our-business---documents-and-files/burrup-hub---documents-and-files/scarborough-cultural-heritage-management-plan.pdf?sfvrsn=162e353a_3 (3)
- Woodside advised it continues to consult with MAC on all relevant aspects of this EP prior to and during the execution of activities. (1)
- Woodside advised it considers the adequate time and information it has provided, including the meeting on Tuesday 14 March 2023, to be more than suitable to inform feedback on Woodside's proposed Scarborough EPs (8, 9).
- Woodside confirmed that as per Woodside's ongoing consultation approach, feedback and comments received continue to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation (8, 9).
- Woodside reiterated the consultation information sheet has been available on Woodside's website since August 2021 and invited feedback on the proposed activities to be provided before 30 September 2021. Revision 1 of the SITI EP has been available on the NOPSEMA website since 13 January 2022. Woodside reprovided links to both documents (8, 9).
- On 10 May 2023, the EDO (acting on behalf of a same and save Our Songlines) emailed Woodside to query the date of previous correspondence.
- On 15 May 2023, Woodside emailed the EDO confirming that the May 2023 correspondence refers to emails dated 9 May 2023 with the subject line "RE: Scarborough Environment Plans Consultation.
- On 1 June 2023, the EDO emailed Woodside confirming, and Save Our Songlines were available to meet in Karratha on Tuesday, 13 June 2023 (8).
- On 6 June 2023, Woodside emailed and Save Our Songlines. Acknowledging and in response to the Save our Songlines correspondence of 6 June 2022, 26 September 2022, 24 November 2022, correspondence via EDO of 6 April 2023, 18 April 2023 and during meeting on 14 March 2023, Woodside confirmed:
 - Ethnographic surveys have been carried out to support EP development (and the EP updated to reflect this), with surveys not identifying any heritage places, objects or values which will be impacted by any of the activities covered by the D&C EP (5)
 - None of Woodside's agreements with Traditional Custodians include "gag clauses" or restrictions on voicing opinions on our projects. Woodside has supported Traditional Custodian representative institutions to access relevant information and independent expert advice so that they are enabled to provide informed and considered feedback on the Scarborough project (3).

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- The principles of Free, Prior and Informed Consent (FPIC) are based in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) where it is envisaged as a communal right of Indigenous communities and secured through consultation with representative institutions utilising traditional decision-making mechanisms such as deferring to MAC's Circle of Elders. Woodside is guided by UNDRIP under our Indigenous Communities Policy and has consulted representative institutions including MAC for a number of years (6).
- Woodside has made several attempts since November 2021 to engage with Save Our Songlines, with a meeting held on Tuesday 14 March 2023. We confirm that Woodside is open to receiving feedback and to discussing issues raised in relation to the D&C EP. As per Woodside's ongoing consultation approach, feedback and comments received continue to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation. (8)
- The D&C EP assesses both direct and indirect impacts and risks associated with the PAP and is outside the National Heritage Place and anticipated boundary of the Murujuga Cultural Landscape World Heritage Property (5).
- Emissions from the activities covered by the D&C EP are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen. No rock art will be displaced as a result of the Scarborough Project and damage to heritage sites is not anticipated as a result of the PAP (2, 5)
- The activities covered by the D&C EP are located ~430km away from Murujuga and will have no impact on access to sites of cultural and spiritual significance.(2, 5)
- Woodside has resourced Traditional Custodian representative institutions to access relevant information and independent expert advice so that they are enabled to provide informed and considered feedback on the broader Scarborough activities. A number of documents containing cultural heritage information, including heritage assessments, contain the intellectual property of Traditional Custodians or sensitive information that may be culturally restricted. For these reasons, Woodside does not disclose this information. This information is held by representative institutions and may be disclosed by them where they consider in appropriate to do so (12)
- Woodside shared a link to the publicly available Scarborough Project Cultural Heritage Management Plan (12)
- In response to the Save our Songlines letter dated 26 September 2022, Woodside referred to responses provided to address claims in the 6 June 2022 Save our Songlines letter and also confirmed Woodside has undertaken an ethnographic survey to identify cultural heritage that may be impacted by Scarborough activities. This work has not identified any heritage places, objects or values which will be impacted by the activities covered by the D&C EP (5).
- In response to the Save our Songlines letter dated 24 November 2022, Woodside confirmed it considers the time and information it has provided, including the meeting on Tuesday 14 March 2023, to be more than suitable to inform Save our Songlines feedback on proposed Scarborough EPs. As per the ongoing consultation approach, feedback and comments received continue to be assessed and responded to, as required, through the life of an EP, including during EP assessment and throughout the duration of the accepted EP, in accordance with the intended outcome of consultation (8, 9).
- On 7 June 2023, Woodside emailed the EDO requesting the email be forwarded to meet in Karratha on 13 June 2023 to continue consultation on the Scarborough EPs; proposed an agenda; confirmed meeting protocols and advised Woodside attendees. Woodside requested to know who would be attending on behalf of SOS and confirmation of other meeting details. The agenda included the sharing of interests, the functions of Save Our Song lines, a walk through of Scarborough EPs, and a description of the Scarborough Project and activities to be undertaken under each EP. The same meeting protocol agreed prior to the March meeting was shared, including no audio or visual recording being taken. On 9 June 2023, Woodside emailed the EDO, and Save Our Songlines requesting confirmation of the meeting scheduled for Tuesday 13 June 2023 and its time and location. Confirmation was sought by 5pm on 9 June 2023 as there were a number of flight and other logistics that needed to be confirmed by 5pm in order for that meeting to progress on Tuesday. If the meeting could not proceed then requested the provision of alternative meeting dates (8).
- On 9 June 2023 after 5pm the EDO emailed Woodside confirming availability for a morning meeting on 13 June 2023 (8).

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•	On 9 June 2023, Woodside emailed the EDO advising reasons why it was not available to meet on 13 June 2023 ie. flights and other logistics had timed out (8).
•	On 10 June 2023, the EDO emailed Woodside to advise and Save Our Songlines were available to meet on 13 June 2023 on country with the EDO and provided a phone number to discuss logistics. EDO did not object to the agenda or the meeting protocol (including no recording being taken) (7, 8, 9).
•	On 12 June 2023, the EDO on behalf of its clients and Save Our Songlines emailed Woodside advising availability to meet on 13 June 2023 at Hearson Cove. Despite its previous position committing to consulting on all Scarborough EPs, and confirmation that and SOS had information to share on all Scarborough EPs and the Scarborough Project generally (see correspondence dated 26 September 2022, 8 November 2022 and 24 November 2022) the EDO for the first time stated it did not think it was appropriate to deal with all 4 EPs in one meeting (15). EDO did not raise any concern with the meeting protocol, including no recording being taken.
•	On 12 June 2023, Woodside emailed and a draft agenda. Woodside requested next available dates for a meeting with and a draft agenda. Woodside and Save Our Songlines and the EDO.
•	On 12 June 2023, the EDO emailed Woodside to advise the and Save Our Songlines wanted to keep the existing arrangement for a consultation meeting on 13 June 2023 in Karratha.
•	On 14 June 2023, the EDO emailed Woodside to advise that their clients, and Save Our Songlines were still willing to meet at the times specified in the previous email while EDO solicitors will be available in Karratha and that Woodside could join by phone or videoconference if needed.
•	On 14 June 2023, Woodside emailed the EDO and and Save Our Songlines to advise Woodside was not available to meet the week of 13 June 2023 but proposed 5 alternative dates in June 2023 for a meeting to be held in Karratha or via Teams (remotely). These dates allow for Woodside to follow the agreed protocols (including having a female only team) (7, 8).
•	On 14 June 2023, the EDO emailed Woodside to advise it would revert back once instructions had been received from their clients.
•	On 14 June 2023, the EDO emailed Woodside, confirming dates to meet in Karratha in June, and noted the agreed meeting protocols.
•	On 20 June 2023, the EDO emailed Woodside to advise the EDO will not be in a position to arrange any in-person consultation meeting for the week of 20 June and the EDO is awaiting instructions as to preferred dates and next steps for consultation. In the meantime Woodside could let the EDO know if Woodside had any questions (8).
•	On 21 June 2023, Woodside emailed the EDO, and advising that Woodside was looking forward to hearing from them when ready. Woodside offered for comments / queries / requests to be emailed in the meantime if more efficient (8, 9).
•	On 28 June 2023, the EDO on behalf of its clients, and SOS, emailed a letter to NOPSEMA and copied Woodside urging NOPSEMA to not accept the 4 Scarborough EPs Woodside had submitted as Woodside had failed to comply with its consultation obligations under reg 11A (8, 9). The EDO stated:
	Woodside had not notified the SOS that the EPs had been submitted nor the dates of submission.
	A meeting scheduled for 13 June 2023 did not proceed; plans to reschedule are ongoing.
	Woodside had not explained the activities of the Scarborough EPs and the associated impacts and risks in a way the SOS can understand and how this will impact their functions, interests and activities. Also, SOS had not been provided with sufficient information and a reasonable period for consultation (8, 9).
•	On 3 July 2023, Woodside emailed the EDO and copied NOPSEMA in response to the EDO's letter to NOPSEMA dated 28 June 2023 (copied to Woodside). Woodside clarified:

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-	Woodside had consulted and Sos's relevant persons status (4, 8).	SOS while preparing the 4 Sca	arborough Project EPs since March 2022.	Woodside reaffirmed , ,
-	Consultation between Woodside and meetings, 2 attempted meetings, 19 emails, 7 phone		tensive over an extended period. As at 13 er to NOPSEMA, copied to EDO dated 17	
-	At a meeting on 14 March 2023, Woodside provided the activities to be carried out under the Scarboroug on the basis that some matters included secret won	h EPs. Woodside agreed to k		OS to provide further understanding of ntial at the request of the EDO's clients
-	Following this meeting, a suite of correspondence wan informed assessment of the possible consequent previously provided since August 2022 and the public provided since August 2022 and the August	ces of the activities on their fu	nctions, interests or activities. This was in	addition to consultation material
-	During the meeting, without expressing to Woodside the EDO or its clients), and SC Scarborough EPs in a way that could minimise the continued to continue to consult with relevant to the Scarborough EPs (8, 9).	OS informed Woodside that no effects of those activities on the	thing could be done by it to progress with	the activities to be carried out under the vities (10). Nonetheless, Woodside had
-	Woodside had been prepared to meet and had conf		EDO's clients and the EDO.	
-	Woodside considered it had met reg 11A of the Reg			
-	Woodside remained open and available to meet and		-	
	17 July 2023, the EDO emailed Woodside with 4 pot y 2023 and advised it would revert in due course.	ential video conference meeti	ng dates in July. The EDO also acknowled	Iged receipt of Woodside's letter of 3
• O	17 July 2023, Woodside emailed the EDO advising it	t would revert with meeting de	tails.	
	118 July 2023, Woodside emailed the EDO confirming enda was proposed and the agreed protocols were in			
• <u>Or</u>	19 July 2023, Woodside provided the EDO with NOF and Save Our Songlines ahead of the meeting		ts (brochure, guideline and policy) and as	ked they be provided to
	and podside.	of EDO have	taken over carriage of the matter and they	will respond to the latest emails from
	19 July 2023, the EDO responded to Woodside confead of the 13 June Karratha meeting that did not proc			
	20 July 2023, Woodside responded to EDO agreeing offirmation on specific protocols to be adhered to in the			be reviewed internally, and requesting
pr wo	21 July 2023, Woodside emailed EDO notifying that oposed agenda and that Woodside would provide infould give and sos an opportunity of irmation that previously mentioned protocols would be a second control of the second successive that the second successive the second successive that the second successive the second successive that the second successive that the second successive the second successive that the second successive the second successive that the second successive the second successive the second successive that the second successive the secon	rmation on the broader Scarb to discuss and ask questions		sessed rather than a single EP. This
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tha	24 July 2023, EDO emailed Woodside to inform that prototo the meeting be recorded but paused for discussion of the discu	culturally sensitive matters	(7). This was raised a day before the meeting, d	espite Woodside circulating the
	25 July 2023, Woodside emailed EDO to state that Wortten notes however there will be no other recording of m			
• On	25 July 2023, and SOS' lawyers c	onfirmed they were runnin	g late to the meeting. [Ref 25 July 2023 email 9:0	1am]
• ME	ETING: On 25 July 2023, Woodside met with EDO and	SOS, and and	via web meeting:	
-	After introductions, EDO stated that for the meeting to and SOS would not participate in the meeting.	proceed the meeting had	to be recorded. It was stated that if the meeting w	/as not recorded,
-	As this had not been agreed between the parties, at at this as an issue on 24 July, the day before the meeting time between the March and July meetings, including	g. EDO, SOS,	and could have raised an objection to the	
-	During the meeting on 25 July, following a pause in the Woodside agreed to rejoin the meeting and the meeting approximately 1 hour.			
-	When the meeting recommenced, Woodside provided context and provided an overview of the Scarborough willing and able to address all 4 Scarborough EPs incl	Project. In accordance wit	h emails exchanged before the meeting Woodsid	e came to the meeting ready,
-	to hear the presentation on any other EP, stating that 24 July 2023 that Woodside had said it would provide	information on the Scarbo	to consult on one EP (seismic EP). This was desp	ed to provide information on these
-	Woodside provided an overview of the Scarborough p question relating to the Drilling EP regarding the depth depth, however the wells themselves are drilled a lot depths and target reservoir depths, and provided this depths.	of the Scarborough wells beeper to get to the reserve	(1). Woodside noted the wells will be drilled in appoir. Woodside noted they would take an action to	proximately 900 -950 m water
-	Woodside provided an overview of the Scarborough S environment that may be affected. Woodside provided how it is driven by the highly unlikely event of a hydrod querying who determines the credible spill scenario (1 lawyers said they would make a list of questions to go (15). When the topic of drilling and well depth was rais lot', and, despite this, EDO lawyers again suggested the	an overview of the spatia carbon spill from a vessel of the woodside offered to expend through after. At this point ed later in the meeting the meeting was to only dispendent.	enquired as to the unplanned plain or to note the question and respond after the state of the EDO lawyers again required that the meeting we indicated she didn't want to skip past an cuss the seismic EP (15).	or the Scarborough project and drisk of an oil spill, particularly presentation, though EDO ould only discuss the seismic EP d wanted to go through the 'whole
-	and SOS provided feedback and provided relevant to any of the Scarborough activities. the meeting (8, 9).	asked questions relevant and	to a different Scarborough EP (Seismic EP). No r SOS declined to provide further detail about the r	new cultural information was nature of their cultural values at
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-	and SOS raised queries relating to the oil spill modelling Woodside undertakes to determine the EMBA (1). Woodside gave an overview of oil spill modelling and the stochastic nature of the model (1). EDO requested Woodside to provide the underlying information for the oil spill modelling about how the risk is determined i.e. worst case hydrocarbon spill scenario. Woodside provided a response to this request as part of their correspondence on 27 July 2023.	
-	and SOS stated that they are broadly concerned about impact on the whales (13) and other animals (16), the songlines (unspecified) and the energy lines (18).	
_	and SOS stated that only they know the songlines and other Traditional Custodians did not, including MAC (6)	
-	The meeting agreed outstanding questions for Woodside to revert on (1). While these questions were not necessarily asked in relation to this activity, some of them are relevant to this activity. Woodside also pointed Save Our Songlines, and to the summary consultation information sheets which are designed to explain highly complex content in a more readily understood manner (8).	
-	Woodside asked whether Save Our Songlines, in particular the communal and/ or iindividual interests held (9). declined to do so and suggested that this meeting was not the time for that. stated the focus of herself, and Save Our Songlines at that time was to understand the activities, and that this information could be shared at a later time when they are ready (9).	
-	Woodside pointed out that an another and SOS had told Woodside that they would provide information at the meeting and had not done so. Woodside asked for honesty going forward so that information would be provided to Woodside where and SOS had told Woodside they would provide it.	
-	Woodside offered to establish fortnightly meetings to provide and SOS opportunities to provide the information to Woodside.	
-	SOS stated that they did not regard consultation had commenced until today. Woodside did not agree and this contradicts previous correspondence from and SOS, where letter 24 March 2023 consultation had just commenced (11).	
-	The parties agreed to share the recording of the meeting.	
• 0	n 25 July 2023, EDO emailed Woodside:	
-	Requesting a copy of the recording,	
-	Requesting a response to seven follow up questions from and SOS, six of which are relevant to this EP relating to freshwater, migratory patterns of whales, dugongs and turtles, seagrass distribution, the worst case spill scenario and modelling, acoustic emissions (specifically decibels) associated with the seismic survey (1).	
-	Informing Woodside of and SOS' desired approach for response to the meeting on 25 July and further engagements, including that and SOS would provide a preliminary response to the meeting in video format on country, which may need to be supplemented (14). This has never been provided to Woodside.	
-	Proposing a sequence of meetings and responses be adopted on a per-EP basis (15)	
-	Requesting confirmation that the consultation meeting on 25 July formed part of the consultation requirements required by Reg 11A of the OPGGS (Environment) Regulations 2009 for a different EP (Seismic EP) (8).	
	n 25 July 2023, Woodside emailed EDO notifying that Woodside will discuss the points raised and respond accordingly, and agreeing to provide the recording of the eeting.	
• 0	25 July 2023, EDO emailed Woodside requesting the meeting recording be provided via SharePoint, confirming that it would be passed on.	
• 0	a 26 July 2023, Woodside provided a recording of the meeting held on 25 July to EDO via a secure file transfer system and requested that it be passed on to SOS.	
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•	On 27 July 2023, Woodside responded to EDO's email on 25 July:
	- Confirming that a copy of the meeting recording from 25 July had been sent to EDO
	- Providing responses to the seven follow up questions from and SOS (1)
	- Noting that despite agreement prior to the meeting that cultural interests and feedback would be discussed at the meeting, this was not shared (9)
	- Describing previous offers of meetings, noting that these were declined and confirming Woodside availability to meet on country (8, 14)
	Describing why it is it Woodside's preference to consult on the Scarborough project as a whole rather than on a per-EP basis, and noting that during the meeting and SOS asked questions about various Scarborough Project EPs (15).
	- Describing how requirements of Reg 11A have been met, however Woodside remains open to continued consultation with SOS in good faith (8).
•	On 3 August, Woodside emailed EDO requesting that a message be passed on to SOS:
	- Following up on Woodside's offer to meet on-country and whether SOS would be available (15).
	- Informing that a separate Scarborough EP had been accepted by NOPSEMA with conditions requiring Woodside to seek further input, and requesting that SOS inform Woodside if it has input or information to provide (8, 9).
	- Providing links to information about EP consultation and describing the purpose of EP consultation (8).
	- Informing SOS that gender-restricted or culturally sensitive information is managed carefully, and attaching NOPSEMA's Policy for Managing Gender-Restricted Information" (7).
•	On 9 August 2023, EDO emailed Woodside:
	- Confirming that the recording of the meeting from 25 July had been received and passed on to SOS
	- Noting that its clients expect Woodside to comply with EP acceptance conditions related to a recently accepted Scarborough EP with the same EMBA
	Reiterating its "clients explained they were not ready to provide Woodside with information following the presentation". This was contrary to previous correspondence where and confirmed they had information to share on all Scarborough EPs and the Scarborough Project generally (see correspondence dated 26 September 2022, 8 November 2022 and 24 November 2022) (8, 9).
	- Stating that approaching consultation in good faith requires flexibility, that a fortnightly meeting arrangement is not appropriate and that a proposed date for another meeting will be part of a separate email (8).
	- Reiterating that SOS, and and intend to consult on EPs individually and consecutively, rather than concurrently, despite the previous position that consultation was occurring across all Scarborough EPs and the Scarborough Project generally (15).
	- Stating that SOS do not consider that requirements of Regulations have been met, and that a response following the meeting on 25 July is in preparation (8).
•	On 9 August 2023, Woodside emailed EDO, requesting that a message be passed on to SOS:
	- Confirming that Woodside had previously consulted with SOS regarding the separate, accepted Scarborough EP with the same EMBA (8)
	Informing that the activity described in the separate Scarborough EP is planned to commence on a specified date, and requesting that SOS inform Woodside whether it is aware of any other people that have not been afforded the ability to provide information, or of any information SOS wishes to provide on cultural or heritage features/values prior to the activity commencing (8, 9).
•	On 10 August 2023, the EDO emailed Woodside (and copied NOPSEMA) regarding a Foreshadowed breach of conditions related to the separate, accepted

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Scarborough EP and advised its clients were alarmed that Woodside intended to commence activities on 12 August 2023 before it had complied with certain conditions

in the Approval. The EDO further stated Woodside had not met the conditions and that its clients did not consider they had been sufficiently consulted on the separate Scarborough EP. The EDO requested an undertaking from Woodside that it would not commence an activity until it had fully consulted with its clients and that that undertaking was provided by 12 noon AEST on 11 August 2023. If this did not occur the EDO was instructed to seek injunctive relief in the Federal Court of Australia.

- The EDO also stated it considered the Approval invalid and without a valid approval Woodside could not commence the activities under the separate accepted Scarborough EP.

Correspondence 11 August – 12 September 2023

An amount of correspondence was exchanged in relation to the Federal Court proceedings. A relevant summary is below:

- On 17 August 2023, and SOS commenced Federal Court proceedings seeking a judicial review of NOPSEMA's decision to accept the Seismic EP with conditions. An affidavit of was silled on that date which referenced and SOS
- On 21 August 2023, Woodside emailed the EDO seeking consultation regarding another EP. In the email, Woodside also reiterated previously agreed upon consultation conditions and reaffirmed its readiness and willingness to meet and consult with and SOS, and requested available date to meet.
- On 22 August 2023, the EDO emailed Woodside informing that they would obtain further instructions from their clients regarding available dates for consultation and would email soon. The EDO also reiterated that SOS remains willing to consult.
- On 25 August 2023, the EDO emailed Woodside with two dates and location options available for consultation with their clients.
- On 25 August 2023, Woodside emailed the EDO seeking clarification on the two dates and information regarding payment for airfare to and from the consultation location.
- On 25 August 2023, the EDO emailed Woodside confirming both date options.
- On 25 August 2023, Woodside emailed the EDO confirming receipt of the email and responding that they would revert with availability.
- On 29 August 2023, Woodside emailed the EDO with a preferred consultation date of 12-13 September 2023. Woodside also reaffirmed that these consultations would take place on a no-admission basis in relation to whether Woodside has satisfied Reg 11A of the OPGGS (E) Regulations given that EDO's clients hold a different view. It was also stated in the email that Woodside is proceeding on the basis that previously agreed protocols apply (7, 8). Woodside also enquired about receipt of a video taken on Murujuga that was expected to be forwarded from and SOS (8, 9, 14).
- On 30 August 2023, the EDO emailed Woodside confirming receipt of email and said they would respond soon.
- On 1 September 2023, Woodside emailed the EDO following up a confirmation for consultation on the 12 and 13 September 2023, for a 2-day on-Country workshop with SOS.
- On 4 September 2023, the EDO emailed Woodside responding to the email sent on the 29 August 2023:
 - The EDO agreed that consultations are to take place on a no-admission basis and provided instructions on how the 2-day consultation meeting is to proceed including separating the two days over time (7, 8).
 - The EDO asked that the first meeting focus on one specific EP (not this EP) and the second meeting, sometime after the 29 September 2023, will take place on Country with the intention of visiting the island off Murujuga (14). As noted above, this was contrary to the initial position taken by that they would consult on all Scarborough EPs and had information to share on each Scarborough EP (15).
 - The EDO expressed their client's interest in meeting a third time to discuss appropriate measures put in place for the EP previously discussed (not this EP).

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	- The EDO asked Woodside to confirm that audio recordings at the meeting are permissible, as agreed on 25 July 2023, and that the consultation is to take place with only women (7).
	- The EDO responded to Woodsides query about the on-Country Murujuga video and stated that, their clients no longer intend to provide that video (14).
•	On 7 September 2023, the EDO emailed Woodside asking to confirm the consultation date of 12 September 2023 for planning purposes (flights and accommodation).
•	On 7 September 2023, Woodside emailed the EDO confirming the consultation date of 12 September 2023 along with a proposed location in Karratha. Woodside restated the previously agreed upon protocols and listed the female Woodside employees that would be attending the meeting. Woodside confirmed the consultation would be conducted on a non-admission basis given the different view of the parties as to whether consultation occurred in accordance with Environment Regulations (7, 8).
•	On 7 September 2023, the EDO emailed Woodside agreeing to the location, outlining dietary requirements and listing the attendees on their side.
•	On 7 September 2023, as part of the Federal Court proceedings, a second affidavit of was filed. This affidavit sets out information relating to and SOS. It contains information that was filed. This affidavit sets out information relating to and SOS. It contains information that was filed. This affidavit sets out information relating to and SOS have declined to previously provide to Woodside in the course of consultation, communications and meetings that have taken place since around 2022.
•	The affidavit contains information about and SOS' interests, including in relation to "whale dreaming" and songlines. This information is publicly accessible in an online court file. This information was not provided to Woodside in previous consultation, and was asserted it could not be provided due to cultural sensitivity and as a result of a lack of information about the Scarborough EPs and their impacts on interests (9). Woodside was therefore surprised to see the information for the first time being provided in a public forum when Woodside has been asking for and consulting with and SOS in order to hear and discuss the information for at least a year.
•	On 11 September 2023, the EDO emailed Woodside confirming the 12 September 2023 meeting and asked Woodside to confirm that the purpose for the meeting is to discuss a specific EP (seismic) to better understand the nature of the activities and ask questions to Woodside (15).
•	On 11 September 2023, given the context of the Federal Court proceedings focused on the Seismic EP, Woodside emailed the EDO:
•	Confirming that the meeting proposed is to go over a specific EP (not this EP) and answer any further questions their clients have (15, 8, 9).
•	Asking and SOS to provide questions in advance so that Woodside can have answers ready to share (8, 9).
•	Stating that they would like to provide a refresher on other Scarborough EPs including this EP with the aim to consult and provide and solvent and sol
•	Restating Woodside's commitment to ongoing consultation with and SOS as part of its commitment to ongoing consultation during the life of an environment plan.
•	MEETING: On 12 September, Woodside met with, SOS and EDO in Karratha sent her apologies as she could not make it and asked for meeting to go ahead without her. Culturally sensitive and gender restricted content was discussed and has been provided to NOPSEMA separately in accordance NOPSEMA's Managing Gender Restricted Information. The meeting covered all of the Scarborough activities to the extent that is described or discussed below. During the meeting:
	- EDO and opened the meeting by stating that would like to learn more about the activities covered under another Scarborough EP (seismic), and that she would then revert to Woodside to share her story.
	Woodside provided a recap of the previous meeting (25 July 2023) and ran through how Woodside had addressed the topics raised during that meeting. Woodside shared the control measures that had been adopted in the Scarborough EPs as a result of consultation with and addressed the topics raised during that meeting. Woodside shared the control measures that had been adopted in the Scarborough EPs as a result of consultation with and sold addressed the topics raised during that meeting. Woodside shared the control measures that had been adopted in the Scarborough EPs as a result of consultation with
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	EDO queried whether any control measures have been removed from the Scarborough EPs overtime and what mitigation measures were considered and not implemented in the EPs (1). Woodside explained that principles of the ALARP process that underpins environmental impact and risk assessment, and that the process generally means <u>building in</u> and improving environmental controls over time (1).
-	Throughout the meeting, SOS raised concerns and questions, which are summarised below, and were addressed during the meeting:
-	How Woodside determines that the potential impacts from an activity are ALARP and acceptable (1).
-	A concern about the potential impacts from another Scarborough activity (seismic) on whales (16) and emphasized the importance of these animals (whales) and their deep connection to them (13).
-	Who conducted the MAC ethnographic surveys, and whether and SOS could be provided with the full report (12).
-	How Marine Fauna Observers (MFOs) are able to spot whales from the vessels.
-	A request for further information on the Jupiter Fields. Woodside noted that all the Scarborough gas fields are covered in the Scarborough OPP and that this information could be provided to and SOS (1).
-	In response to these concerns and questions, Woodside asked and SOS whether there was anything that Woodside might be able to do to help minimise any impacts to cultural values. and SOS stated words to the effect that the only thing Woodside could do is stop the project (10).
-	During a discussion on the impacts of noise emissions on cetaceans, and SOS questioned why there was a focus on pygmy blue whales, rather than humpback whales, which woodside considered, implemented and showed to and SOS at a subsequent meeting [ref meeting 4 October 2023).
-	Woodside encouraged and SOS to take some time and read through materials provided to her. Woodside asked whether and soS had any information from her own history and her own knowledge and information that she could share, including the kinds of issues that Woodside should be looking at that are of importance to her. The surveys will be and SOS again stated that she could not share any further information until she is provided with the cultural heritage surveys WEL has had completed. Woodside said they would share the publicly available content from the report, and repeated that and SOS would need to speak to MAC if they wanted access to the full report (12).
-	and SOS indicated her desire to take Woodside employees out to Rosemary Island for an on-Country meeting. Woodside enquired as to the logistics including whether they would need to travel by boat and how long the boat ride would take (14).
-	Woodside shared that there are consultation meetings happening in Karratha, Port Headland and Roebourne the following week, and that and solve to attend and ask any questions or share anything then (8, 9).
-	Woodside concluded the meeting noting the information that Woodside had committed to providing and SOS and checking whether there were any other documents to be provided.
mee info	13 September 2023, the EDO emailed Woodside thanking them for the meeting on the 12 September 2023. The EDO also stated that they were looking forward to eiving requested information and listed the specific requests in the email. They also reiterated that they expected that certain cultural information divulged in the eting to remain confidential and gender-restricted, referring to the agreed upon consultation protocols (7). This was not expected by Woodside because at all times, and SOS have control to stop a recording and point out that culturally sensitive information is being shared. It was not apparent during the meeting that the email of the recording to be stopped. In any event, Woodside acknowledged the position and undertook manage the information sensitively.

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•	On 13 September 2023, as part of the Federal Court proceedings, a third Border affidavit was field. This affidavit confirmed that "has not been consulted and wishes to be consulted in relation to the Drilling EP (and other Environment Plans relevant to the Scarborough Project that are not the subject of these proceedings")
	(8).
	Woodside provided the information to and SOS by email on 17 September.
Su	mmary: - correspondence leading to 4 and 5 October meeting
on	significant amount of correspondence was exchanged between Woodside and and SOS from 15 September in relation to Woodside's offer to meet 4 and 5 October to give another opportunity for an and SOS to provide and discuss information they say they have and that Woodside needs for its arborough EPs.
A s	summary of the correspondence is as follows:
17	September – 2 October 2023
•	On 17 September 2023, Woodside emailed and SOS to agree a way forward to finalise consultation on all Scarborough EPs with the utmost expedition and in a culturally appropriate way.
•	Woodside confirmed the urgency around consultation and offered an opportunity to attend a meeting on country every day (including weekends) during the next week. Woodside also confirmed it is open to discussing and receiving any and all information on all Scarborough EPs. This was acknowledged by EDO (Ref email 19 September 2023 and 20 September) (7,8,9)
•	Given the urgency and given there was no response, the email was followed by phone calls, voice mail and text messages to and and and an and some on 18 September.
•	In this email Woodside confirmed that information provided at and SOS' request relating to the DSDMP, CHMP, UWA study and OPP is already publicly available.
•	The information has been previously provided to and solving and so
•	On 19 September, the EDO sent an email to Woodside and noted that was unable to meet because of personal circumstances, because her lawyers were heavily occupied with the Federal Court proceedings and because of the large amount of information provided following the 12 September meeting.
•	On 20 September 2023, Woodside sent an email to the EDO and reiterated has stated that she already knows the information that she wishes to provide to Woodside, has received information on each Scarborough EP since at least 2022, through questions and information has shown an understanding of each of the EPs and has been provided the opportunity to discuss each of the EPs at each meeting this year. Woodside requested a meeting by 6 October 2023 at the latest.
•	On 20 September, EDO confirmed and SOS were available for a meeting on 4 and 5 October and that they would like to visit the islands off Murujuga during this part of consultation and asked Woodside to coordinate logistics. A concern was expressed regarding the amount of information that would need to be reviewed prior to the meeting.
•	On 21 September, Woodside agreed to a meeting on 4 and 5 October and agreed to investigate logistics regarding a trip to Rosemary Island. Woodside appreciated the confirmation that consultation would occur on all Scarborough EPs on those 2 meeting dates. Woodside also confirmed that there was no reason for concern regarding information that would need to be reviewed prior to the meeting because has stated that the information she and SOS want to share with
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	Woodside is currently known to them given she and SOS have stated that they have information they want and are ready to share with Woodside. Woodside also reiterated that and SOS have had that information since at least 2022 and have shown an understanding of the content. Woodside asked and soS to confirm items so that Woodside could investigate logistics associated with arranging the meeting, including hiring a boat and venue for the meetings.
•	On 25 September, the EDO confirmed that wishes to visit Rosemary Island as part of the consultation meeting, that attendance was not yet confirmed, and that further logistics would be confirmed the next day.
•	On 27 September, Woodside sent a follow up email because it still had no confirmation from and SOS regarding the items that Woodside needed to be confirmed in order for the meetings and vessel hire to progress. Woodside set out a proposed agenda for the 4 and 5 October meetings and some logistical issues. One issue was that the vessel Woodside is investigating has space for and 3 other attendees selects. Woodside respectfully also notified and SOS that the crew of the vessel was likely to be male and that there were potentially ways to manage the culturally sensitive information out of ear shot of the male crew.
•	On 28 September, EDO provided some information regarding travel to Rosemary Island including that will potentially bring 8 other attendees with her on the boat to Rosemary Island and requiring Woodside to arrange a larger vessel. noted that Rosemary Island is a culturally significant place and she had included 2 males to attend for the purposes of cultural safety. She also suggested that a third party Appeals Convenor (should be included in the trip. She also noted that she did not anticipate there would be any need for the Appeals Convenor or Woodside to share confidential or culturally sensitive information during or on the trip to Rosemary Island.
•	On 29 September, Woodside arranged a meeting with the external boat provided to undertake a risk assessment (including for health and safety) for the proposed travel by boat to Rosemary Island.
•	On 29 September, during the course making preparations for the trip to Rosemary Island, Woodside received strong advice from cultural authorities that because of Rosemary Island's high cultural significance, the cultural authority did not support Woodside convening a meeting at Rosemary Island.
•	On 29 September Woodside sent an email to the EDO. Woodside said that it had received broader cultural advice that Rosemary Island has high cultural significance and that Woodside has been strongly cautioned against convening a meeting at that location because of cultural sensitivity and safety concerns. Woodside suggested Hearson Cove as an alternative meeting location for and SOS to share any and all remaining information on the Scarborough EPs. Woodside also stated that it did not think it would be appropriate for the Appeals Convenor to attend, given the purpose of the meeting and questioned why three EDO lawyers needed to be in attendance.
•	On 2 October, EDO emailed Woodside, expressing disappointment at Woodside's decision regarding Rosemary Island and confirming arrangements for the meeting on 4 and 5 October.
•	Woodside replied on 3 and 4 October confirming that it takes cultural safety very seriously and confirmed that Ngaarda Ngarli community leaders have strongly discouraged Woodside from attending Rosemary Island. Other meeting items and logistics were confirmed.
Ме	eting on 4 and 5 October 2023
•	MEETING: On 04 October 2023 Woodside met with and SOS in Karratha (8, 9)

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	- Prior to meeting on 4 October 2023, Woodside arranged a meeting room at the Karratha Red Earth Arts Precinct and arranged catering. As a gesture of goodwill, Woodside communicated before the meeting and arranged coffees for attendees.
	- Woodside arrived at the Red Earth Art Precinct ahead of the meeting to prepare the room for the meeting and was ready, willing and able to commence at the agreed start time of 10am. Woodside remained at all times, at the meeting room and available to consult on the Environment Plans. A Woodside employee left the meeting for around 15 minutes at a later stage in the meeting in order, at short notice, to re-book a vessel to facilitate a visit to Rosemary Island so that a trip could be made that circumnavigated the island.
	, SOS and EDO arrived at around 10.20am. They exited the meeting a number of times during the allocated meeting time for private conversations, time out and to manage energies that were being felt. In total, spent around two hours outside the meeting.
•	Opening remarks
	and EDO confirmed that would not attend the meeting and that was not feeling the best as she was managing some family and other circumstances.
•	Rosemary Island Trip
	- There was discussion regarding preference to travel to Rosemary Island and Woodside's position that could not attend because of the strong cautions given to Woodside not to attend including for spiritual and cultural health and safety reasons.
	Woodside's aim was to maintain integrity and respect for all first nations people with whom it consults and to present the information in a balanced manner. stated that she found Woodside's change in position on attending Rosemary Island to be disrespectful. In particular, was offended by the fact that Woodside had spoken to other person(s) about her consultation with them.
	asked Woodside to confirm who specifically had told Woodside not to attend the island and expressed concern around this and referenced a spiritual war that was going on
	During the meeting, and SOS shared their perspective on matters leading up to the meeting, including their disappointment about the cancellation of the Rosemary Island trip. Woodside confirmed they were following meeting protocols and showing respect to the Traditional Custodian groups for the area (7, 14). Woodside suggested alternative meeting locations and other options, at a previous meeting and SOS had indicated that they would tell their story at Hearson Cove. The offer to meet at another place or meet at an alternative location on-Country of cultural significance where Woodside could receive the information were rejected by and SOS - all options suggested by Woodside were rejected including (14):
	A suggestion was made by Woodside that they use the boat Woodside had secured to circumnavigate Rosemary Island (but not disembark onto Rosemary Island), allowing and SOS to share her information. and SOS agreed that this could be a compromise. Woodside contacted during the meeting to see if they had a boat available for 5th Oct that could circumnavigate Rosemary Island to allow for consultation on sea country to proceed, without landing on the Island. Confirmed that they had suitable vessel available, and made special efforts to stand-up a marine crew. When Woodside confirmed this was available, and declined to meet.
	 Another option suggested was that and SOS visit Rosemary Island and produce an audio recording of their story; and A meeting at Hearson Cove, as Hearson Cove had previously been identified as culturally safe by and SOS and a place where they had (in March 2023) shared information with Woodside.
	Presentation and Discussion on Scarborough EPs
•	·
	During the meeting, Woodside presented on each of the Scarborough EPs and controls suggested to demonstrate how Woodside had addressed each of the topics and cultural values previously raised by and SOS (13, 17, 19) and the relevant controls in place for each of the SCA EPs activities.
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	Woodside displayed a table on-screen during the meeting which contained the previously expressed areas of interest to and SOS and controls pertaining to each of these interests. When Woodside went to keep discussing these controls after talking through the D&C updates to cultural heritage and noise controls, Woodside was stopped by EDO and questioned why controls were being discussed, and not EP overview / content. In reviewing the newly adopted controls that were able to be covered, SOS and EDO provided views on some controls including the cultural awareness crew training control that had been included in all Scarborough EPs.
-	While Woodside was presenting on the controls implemented for humpback whales, recognized the words were those she had said in the previous meeting with Woodside and appeared pleased that her words were used to describe the controls in the EP (1). and SOS noted that all marine animals are important, not just whales. Woodside asked and SOS to clarify, as in the previous meeting on 12 September and SOS had specified humpback whales as being of particular importance. and SOS disagreed and said she had always said all animals and plants, but whales and turtles are bigger and more apparent (16).
-	On request of and SOS, Woodside presented on the Scarborough activities (Drilling, Seabed Intervention and Trunkline Installation and Subsea Infrastructure Installation), showing the presentation that had been prepared for the 25 July 2023 meeting when Woodside was ready to present on all EPs and was directed to only discuss the Seismic EP.
-	Woodside gave an overview of the Scarborough Drilling and Completions activity (this EP), including the number of wells, well depth, vessels used and length of time of activity. Woodside gave an overview of the drilling process and, when requested by and SOS a drilling video to provide greater visual context. Said she had an understanding of mining equipment and had worked on the Pluto project, she said that she had the 'gist' of what Woodside was telling her, however she wanted to see the equipment. While the video played, steeling to drilling. After the video was played, asked:
-	What the environmental impacts and risks from the activity are (1). Woodside responded to this by outlining key environmental impacts and risks from drilling, including a detailed explanation of noise impacts from DP MODUs, light emissions, atmospheric emissions and marine discharges arising from the activity (1).
-	Woodside then provided an overview of the Scarborough Subsea Infrastructure Installation activity. and SOS had various questions, relating to both the drilling, subsea installation and SITI EPs specifically, including (1);
-	How equipment withstands earthquakes and tectonic movements. Woodside explained the basic requirements of a Well Operations Management Plan, and the safety factors that are considered in the well design process (1) as well as considerations for well location.
-	stated she had watched a lot of spills and was concerned that they don't get contained. Woodside responded that gas released at 900m (Scarborough well depths) would dissolve in the water column and not result in a typical oil spill scenario, but that the greater risk from a spill perspective is diesel spill from vessels caused by vessel collisions for example. Woodside provided an overview of a credible spill scenario from a vessel collision and discussed the Environment that Might be Affected (EMBA) (1).
-	Whether NOPSEMA approves the oil spill preparedness and response plans; Woodside confirmed that these plans are assessed and approved as part of the Environment Plan assessment process (1).
-	Woodside described the subsea installation activity and showed a Scarborough field lay out figure for context. and SOS expressed concern about the nature of the activity. Woodside asked whether and SOS could expand on her concern and queried whether she was concerned about the laydown of flowlines and equipment on the seabed, or more concerned about the presence of vessels in the field. and SOS expressed it was the 'whole lot' she was concerned about. and SOS expressed her desire to seek external experts to provide her with their perspective on the subsea activities (1).
-	Woodside moved on to the last Scarborough EP in the suite (SITI EP) and provided an overview of the proposed Trunkline and explained the process for selecting the Trunkline route and Trunkline construction methodology. and SOS spent some time looking at the figures showing where the Trunkline passed through the Montebello MUZ and the various marine park classifications around the Montebello Islands, and sought to understand that further Woodside provided

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	an overview of the dredging activity for the offshore borrow ground area, and explained the logic behind the focus on environmental impacts from dredging in that EP.
•	Meeting conclusion
	- Woodside again emphasized a willingness to listen to and SOS story and keenness to ensure her cultural values are protected.
	Towards the end of the meeting, Woodside confirmed that a boat was available to circumnavigate Rosemary island on 5 October as was the agreed compromise position. said words to the effect that this was not good enough, and after a brief discussion on the logistics of the boat trip to Rosemary Island, including raised voices and a significant aggressive and emotional diatribe by the meeting ended (8, 9, 14)
	- After the close of the meeting, Woodside informed EDO lawyers that another option available for some states, SOS and to share her story was to share it directly with NOPSEMA (9).
•	5 October meeting
	- Woodside attended the Read Earth Arts Precinct ready, willing and able to engage in consultation on 5 October 2023. Despite Woodside confirming it was ready for the meeting, and EDO declined to attend.
Co	rrespondence following the 4 October meeting
	summary of the correspondence is as follows:
•	Woodside and EDO exchanged emails following the meeting, noting that accounts and take-aways from the meeting differed.
	On 4 October 2023, EDO emailed Woodside stating that each of the Scarborough EPs, including this EP, were not discussed "substantively" with
·	meeting today (4 October 2023), other than the Seismic EP discussed on 25 July 2023 meeting, and that it was the first time Woodside has provided a "substantive" presentation describing the activities described in the D&C EP, SITI EP and Subsea EP.
	, through EDO, emphasised the importance of understanding the impacts and controls relating to animals affected by the activities (1).
	EDO stated that did not agree to meet again on the 5th October in Karratha and could not proceed with the proposed agenda, as she could not share the story she wanted to share with Woodside anywhere other than on Rosemary Island. wished to engage in consultation and share information about her story and how her functions, interests and activities may be affected, she did not wish to meet in those circumstances (7, 8, 9, 14).
	- EDO re-emphasised the importance of attending Rosemary Island for purposes of sharing information (7).
•	On 5 October 2023 Woodside emailed EDO acknowledging the email sent on 4 th Oct 2023 and stating that Woodside's understanding of the meeting differs. Woodside enquired if there were alternative approaches for to share her story from Rosemary Island, such as recording her story or inviting the Regulator to attend and that they remain open to understanding how the issue could be progressed (7, 8, 9, 14).
•	On 5 October 2023 EDO emailed Woodside stating that and EDO would not be attending the meeting that day.
	considered Woodside had seriously damaged the relationship of trust and confidence required for consultation. EDO were instructed to say that was open to the prospect of future meetings if the relationship was able to be repaired (7, 8, 9, 14).
•	On 5 October 2023 Woodside emailed EDO sharing their disappointment that and SOS would not be attending the meeting that day. Woodside confirmed employees were at the Red Earth Arts Precinct centre, as agreed, and was ready, willing and able to participate in the meeting, and that this was another opportunity for to share her information on the Scarborough EPs. Woodside re-iterated that there was no disrespect intended towards that they had accommodated the consultation requests put forward by making themselves available and demonstrating they were ready to listen. Woodside stated that
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with and SOS at Rosemary Island when it byees had received strong advice on cultural safety and gain if there were alternatives available for	was advised not to, due to cultural
PSEMA, cc'd Woodside, which:	
th individuals outside of those involved in consultation" consultation to occur in a culturally safe manner". da, being control measures Woodside had adopted in each of the culturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe manner".	each of its environment plans cessary for genuine consultation ural significance, where she is able
date the varied consultation requests made by	and SOS (7, 8, 9, 14).
Assessment of Merits of Feedback,	and SOS (7, 8, 9, 14).
	oyees had received strong advice on cultural safety an gain if there were alternatives available for 198) was provided (7, 8, 9, 14). OPSEMA, cc'd Woodside, which: gan in October or November 2022, (3); th individuals outside of those involved in consultation e consultation to occur in a culturally safe manner. Ida, being control measures Woodside had adopted in equiturally safe manner and that the trust and respect near the Rosemary Island or "another place of equivalent culturally safe with a number of statements contained within the

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- How equipment installed as part of the Scarborough project withstands earthquakes.
 The nature of the credible spill scenario associated with the various Scarborough activities (including this EP), and underlying information on how oil spill modelling is undertaken.
 Whether NOPSEMA approves OSPRMAs for EPs.
 Whether could seek her own external experts to provide opinion on the EPs.
- Additional information on the Jupiter field
 Environmental controls included in the EPs, including how these have changed overtime, and what controls have been considered and not implemented.
- Environmental impacts from Scarborough activities and how Woodside determines that environmental impacts are at an ALARP and acceptable level
- (2) Threat posed to Murujuga rock art by Scarborough LNG and industrialization on the Burrup, and values associated with:
 - Murujuga
 - Murujuga rock art

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- (3) Murujuga Aboriginal Corporation (MAC) are subject to gag clauses
- (4) Save Our Songlines, and and desire to be consulted as a relevant person
- (5) Need for EPs to consider cultural heritage impacts, both direct and indirect.
- (7) Sensitive information shared by Save Our Songlines, was to be treated with high sensitivity and confidentiality. Meeting protocols agreed by both parties should be met.
- (8) Save Our Songlines, and and have not been afforded reasonable opportunity or sufficient information for consultation.
- (9) Save Our Songlines, and have interests they wish to share with Woodside, for consideration in Woodside's Scarborough Environment Plans.
- (10) Objection to the Scarborough gas project, including the view that no controls could be implemented to minimise potential impacts to cultural values.
- (11) Consultation with Save Our Songlines, and and its early stages [Ref: EDO letter 10 August 2023].

- impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the Petroleum Activities Program for this EP but may be evaluated in other Scarborough EPs as appropriate. Woodside confirmed that emissions from the activities covered by this EP are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen. Woodside advised that no rock art will be displaced as a result of the Scarborough project. [For example email from Woodside 5 Jan 2023 and letter dated 17 April 2023]
- (3) Woodside confirmed that none of Woodside's agreements with Traditional Custodians include 'gag clauses' or restrictions on voicing opinions on its projects. Woodside confirmed it has supported Traditional Custodian representative institutions to access relevant information and independent expert advice so that they are enabled to provide informed and considered feedback on the Scarborough project. [For example email from Woodside 5 Jan 2023 and letter dated 17 April 2023] In any event, Woodside notes that to the extent that this assertion is considered an objection or claim by or SOS, the objection or claim relates to consultation, and not to an adverse impact of an activity to which the EP relates.
- (4) Woodside has consulted extensively with and Save Our Songlines on both the proposed activity and the broader Scarborough project.

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- assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.8.1).
- (2) Not required
- (3) Not required
- (4) Not required
- (5) Not required
- (6) Not required.
- (7) Not required.
- (8) Not required.
- (9) Not required.
- (10) Not required (existing controls are sufficient)
- (11) Not required.
- (12) Not required.
- (13) Woodside has

considered and SOS's feedback and updated Section 4.9.1.5 to record topics of interest and cultural value, including those relating to whales. As a result of consultation with

SOS, Woodside has updated the noise adaptive management control relating to pygmy blue whales to also include humpback whales (C 3.2).

- (14) Not required.
- (15) Not required.

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- (12) Request for MAC ethnographic survey results to be shared with Save Our Songlines, and Requests to know who from MAC participated in the ethnographic surveys.
- (13) Cultural features associated with whales.
- (14) Need for Save Our Songlines, and and to share their cultural knowledge and story on Country.
- (15) That it is not appropriate for Woodside to consult on the Scarborough project as a whole (suite of 4 EPs) in each meeting.
- (16) Demonstrated an interest in:
 - Marine animals
 - Seagrass and dugongs
 - Pygmy blue whales
 - Whales
 - Turtles
 - Underwater heritage
 - Where saltwater and freshwater meet
 - Potential impacts of the Scarborough project activities on whales (particularly the seismic activity).
 - Sharks
 - Water quality
 - Seabirds
 - Plankton
 - Pelagic fish
- (17) The need for Woodside to consider all animals in EP impact assessments.
- (18) Cultural features associated with songlines, dreaming and energy lines.
- (19) Cultural values publicly available in the Affidavits of (September 2023) and Concise Statement (Ref. Section 4.9.1):
 - Muruiuga
 - Rock art
 - Caring for Country
 - Bungarra
 - Eagle
 - Kangaroo

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- Woodside has confirmed, and Save Our Songlines are relevant for this EP and have responded to all requests for further information. [For example, see consultation record in this EP; letter dated 3 July 2023] In any event, as above at (3), Woodside notes that to the extent that this assertion is
- or SOS, the objection or claim relates to consultation, and not to an adverse impact of an activity to which the FP relates

considered an objection or claim by

- (5) Woodside confirmed that EPs assess cultural heritage impacts, including both direct and indirect impacts and risks associated with the PAP. Woodside confirmed that the PAP is outside the National Heritage Place and anticipated boundary of the Murujuga Cultural Landscape World Heritage Property. As above (2). Woodside has confirmed that the extraction of Scarborough gas for onshore processing is not within the scope of the activity described in this EP and therefore that indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the Petroleum Activities Program for this EP but may be evaluated in other Scarborough EPs as appropriate. [For example, see email from Woodside 26 August 2022 and 5 Jan 2023 and letter dated 17 April 2023]
- (6) Woodside has consulted with and SOS separately from MAC and other relevant representative bodies. [See consultation record] In any event, as above at (3), Woodside notes

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- (16) Woodside has considered topics raised and SOS's as to interests and updated Section 4.9.1.5 to record these. At this stage, no additional control measures have been implemented. Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted (including any relevant new information on cultural features or heritage values), it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process
- (17) Not required.
- (18) Woodside has considered

(see Section 7.8.1).

and SOS's feedback and updated Section 4.9.1.5 to record topics of interest and cultural values, including songlines and energy lines. At this stage, Woodside has not been provided with specific information on these potential values so as to

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that to the extent that this assertion is considered an objection or claim by or SOS, the objection or claim relates to consultation, and not to an adverse impact of an activity to which the EP relates.

- (7) Sensitive information has been appropriately handed by Woodside in accordance with agreed protocols. Woodside has agreed with requests from and SOS in relation to meeting protocols. This has included significant efforts by Woodside to allocate women subject matter experts to prepare and attend meetings with and SOS where matters are otherwise managed by male subject matter experts for Woodside [For example, see emails setting up meetings on 14 March 2023; 25 July 2023; 12 September 2023 and 4 October 2023. See emails on 3, 4 and 5 October 2023] In any event, as above at (3), Woodside notes that to the extent that this assertion is considered an objection or claim by or SOS, the objection or claim relates to consultation, and not to an adverse impact of an activity to which the EP relates
- (8) Woodside has, since at least 2022, provided information to and SOS to allow an informed assessment of the possible consequences of the activity on their functions, interests or activities in their Traditional Owner and eNGO capacities. The information provided by Woodside meets the requirements of Regulation 11A for the reasons set out above.

enable a more fulsome assessment. In lieu of additional information on these values, Woodside has implemented a control that inductions for all relevant marine crew will include information on cultural values. including tangible and intangible cultural heritage (C 28.3). This control was updated further during the October 4th 2023 meeting based on feedback received during the meeting that the control should be timebound.

(19) Woodside has considered

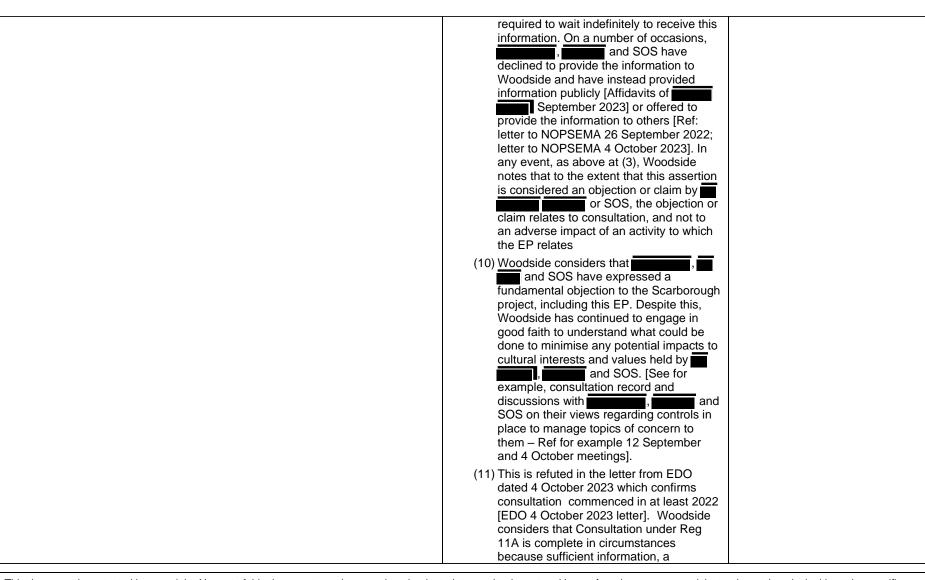
and SOS's feedback and updated Section 4.9.1.5 to record indicated topics of interest and cultural values, including those relating to areas where freshwater and saltwater meet. In lieu of additional information on these values, Woodside has implemented a control that inductions for all relevant marine crew will include information on cultural values, including tangible and intangible cultural heritage (C 28.3). This control was updated

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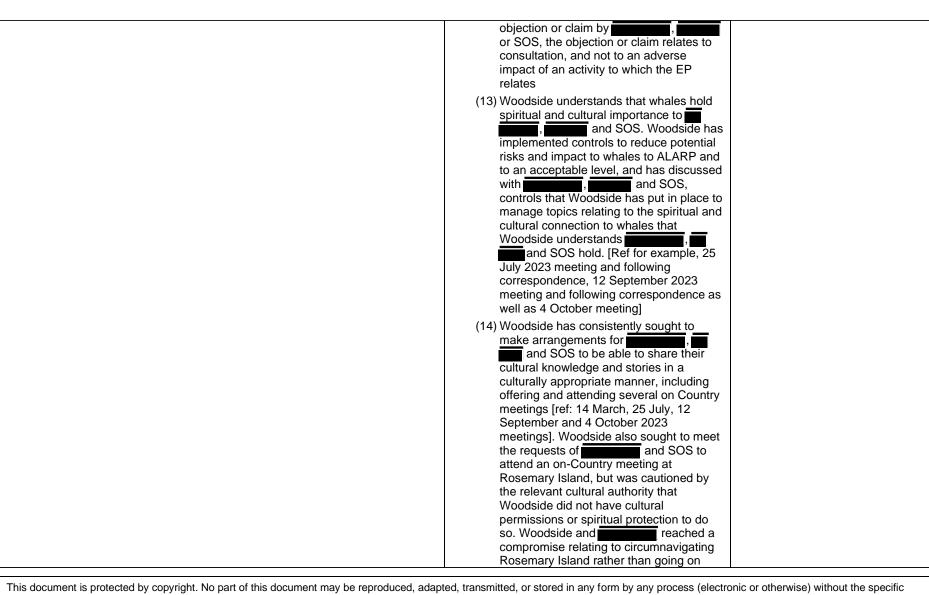


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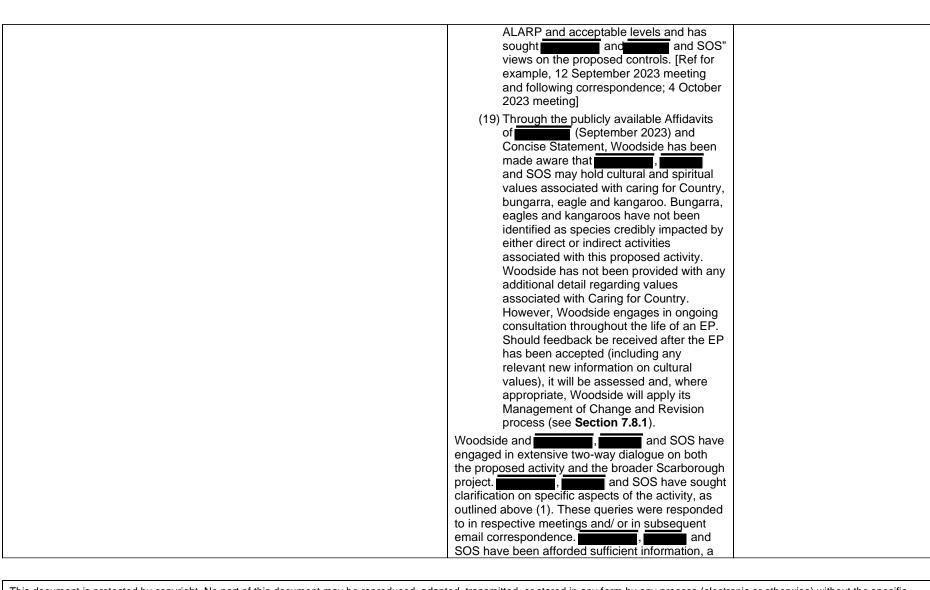
the objection or claim relates to consultation, and not to an adverse

impact of an activity to which the EP relates

- (16)and SOS have not expressly confirmed their interests and rather, have raised topics of interest to them. Woodside has considered and SOS's topics of interest and shared relevant information and SOS relating to these interests, including controls put in place to manage risks and impacts to them, during meetings and subsequent emails. [Ref for example, 25 July 2023 meeting and following correspondence, 12 September 2023 meeting and following correspondence; 4 October 2023 meeting]
- (17) Woodside has confirmed that consideration is given to all marine animals in the Environment Plan preparation process. Marine fauna that may credibly be impacted by both direct or indirect activities are considered in the impact assessment (s. 6). Woodside has also stepped through these issues during consultation meetings [Ref for example 12 September 2023 meeting and 4 October 2023 meeting]
- (18) Woodside understands that songlines and energy lines to hold spiritual and cultural value to and sold and sold and sold woodside has consistently sought to understand the nature of these values to ensure impacts to these values can be minimised. And sold and sold have declined to provide further information on these values. In any event, woodside has sought to include controls that seek to reduce risks and impacts to

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Scarborough Drilling and Completions Environment Plan

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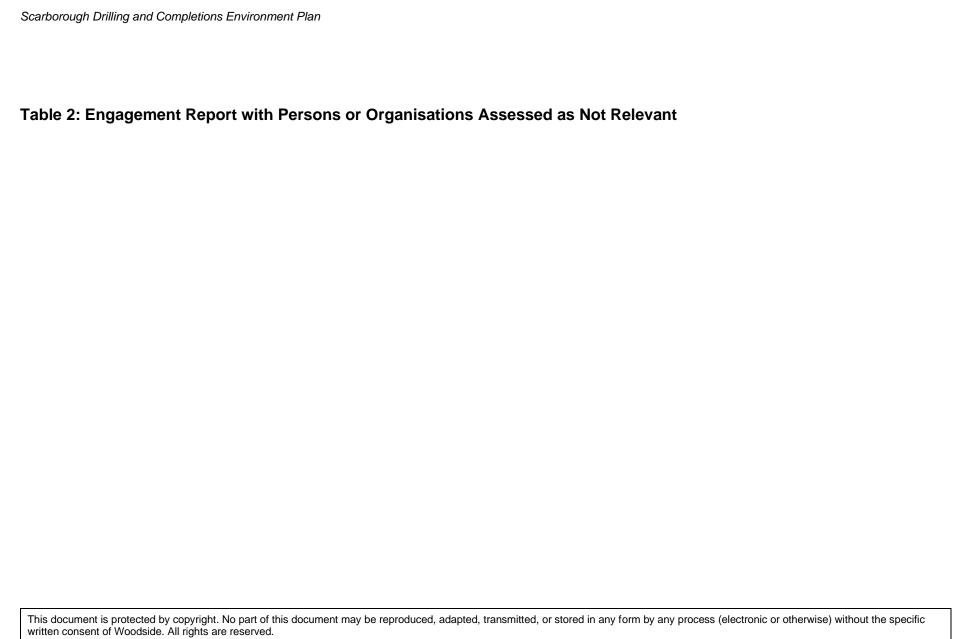
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reasonable period of time and opportunity in their	
individual Traditional Owner and eNGO capacities.	

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Commonwealth Commercial fisheries and representative bodies

Tuna Australia

Woodside considers it has discharged its obligations for consultation under Regulation 11A(1). Sufficient time, information and opportunity has been provided as summarised below:

Summary of information provided and record of consultation:

- On 3 February 2023, Woodside emailed Tuna Australia on the proposed activity (Appendix F, Reference 1.48) and provided a Consultation Information Sheet and fisheries map.
- On 3 February 2023, Tuna Australia responded and requested remuneration for consultation, a previously discussed in 2022.
- On 15 March 2023, Woodside emailed Tuna Australia:
 - Woodside advised that the level of feedback provided by an organisation, if any, is at the person or organisation's discretion.
 - Woodside advised it would be happy to meet with Tuna Australia to provide an overview of our proposed activities, how we develop our environment plans and the
 extensive controls we have in place to reduce impacts to as low as reasonable practical (ALARP) and acceptable level.
 - The aim is to provide an efficient and simple way to obtain feedback and to assist in an understanding of Woodside's activities.
- On 15 March 2023. Tuna Australia emailed Woodside:
 - Tuna Australia attached what it described as 'an industry position statement for engaging with energy companies seeking consultation advice from stakeholders on environmental plans and project proposals'. This included:
 - An overview of Tuna Australia's functions, interests and activities as well as the organisation's company objectives.
 - The geographic areas that Tuna Australia represents by membership Statutory Fishing Rights
 - A recommendation that project proponents also engage with the Australian Southern Bluefin Tuna Industry Association for any proposals in the Southern Bluefin Tuna fishing area.
 - The position that Tuna Australia considers itself a 'relevant person' consistent with NOPSEMA guidelines.
 - A request that Tuna Australia be contacted when any proposed activity has the potential to impact vessel navigation, fishing activities, and/or the conservation of fish resources consistent with the Offshore Petroleum and Greenhouse Gas Storage Act 2006.
 - A request for a map from proponents of the proposed activity to determine if its member interests may be affected on a case-by-case basis.
 - A request that where potential effects exist, there is a need for a service agreement. Tuna Australia advised it can no longer coordinate consultation with offshore energy activities on behalf of Tuna Australia's members without a service agreement in place. Tuna Australia requests proponents execute Tuna Australia's services agreement and provide information in a written succinct manner including estimated boundaries for extent of planned activity impacts (i.e. artificial light, noise, discharges etc) as well as activities within the operational area. This advice will be distributed to members and non-members holding SFRs in the Eastern (114 concession holders) and Western (61 concession holders) Tuna and Billfish Fisheries for comment. Information provided would be relevant to tuna and billfish fisheries in the area that may affect vessel navigation, fishing activities, and/or the conservation of fish resources based on the planned aspects of the activity, and proposed control measures to manage impacts.

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- Tuna Australia noted that it wishes to engage constructively with project proponents for all situations where there is potential for conflict with vessel navigation, access to fishing area and/or gear, and the biology of target fish and baitfish. Advice provided can change annually due to the dynamic nature of its fisheries.
- Tuna Australia encouraged companies requiring advice from its sector to enter into a consultation services agreement with Tuna Australia to support their applications. Noting that Tuna Australia may be able to provide information on vessel navigation, fishing activities and/or the conservation of fish resources that may be affected that is not publicly available and will be an important input to environmental impact and risk assessment processes.
- On 17 May 2023, Woodside emailed Tuna Australia thanking it for its position statement and:
 - Noted the level of feedback provided by an organisation, if any, is at the person or organisation's discretion.
 - Woodside does not have an expectation that organisations will provide a report or engage a consultant to engage in consultation or provide feedback on their behalf.
 - Woodside is open to suggestions from Tuna Australia as to ways to improve efficiency and simplicity for feedback so that the process is manageable.
 - Woodside reiterates it would be happy to meet with Tuna Australia to provide an overview of our proposed activities, how we develop our environment plans and the extensive controls we have in place to reduce impacts to as low as reasonably practical (ALARP) and acceptable level.
- On 17 May 2023, Tuna Australia sent an email to NOPSEMA, and copied in Woodside, regarding Woodside's position on engagement with Tuna Australia. The email stated:
 - When energy companies execute a service agreement with Tuna Australia, this ensures that all Western Tuna and Billfish Fishery (WTBF) and Eastern Tuna and Billfish Fishery concession holders are consulted on environmental plans and responses are provided in a report.
 - Woodside do not have an appreciation of the nature of fishing and are more content to receive information to support their environmental plans and proposals free of charge. This is not consistent with their company values.
 - Woodside has failed to recognise the WTBF is a relevant person
 - WTBF concession holders are very concerned with developments in their fishing zone and have many comments and questions on environmental plans and proposals.
 - Tuna Australia requested that to meet sound consultation principles NOPSEMA stipulate that all environmental plan submissions receive formal advice from Tuna Australia.
- On 26 May 2023, Woodside had a phone call with the Tuna Australia CEO and:
 - Explained that Woodside would like to discuss a path forward following receipt of Tuna Australia's Position Statement across its EP activities, including the activities proposed under this EP.
 - Noted Tuna Australia's correspondence to NOPSEMA and copied to Woodside dated 17 May 2023.
 - Noted Tuna Australia's previous EP consultation feedback that Woodside had responded to with respect to unrelated EPs.
 - Reiterated that Woodside does not expect Tuna Australia to provide a consultation report for each of its EPs and are concerned about this potential misalignment on expectations.
 - Tuna Australia advised it would like to discuss a way forward as Woodside suggested and requested Woodside call Tuna on 30 May 2023, which Woodside committed to.

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- On 2 June 2023, Woodside made a follow up phone call to Tuna Australia and left a voicemail covering the following:
 - Woodside called Tuna Australia on 2 June 2023 to follow up on phone call on 26 May 2023.
 - Woodside left a message requesting a call back and the opportunity to meet with Tuna Australia to discuss Woodside's portfolio of environment plan activities.
 - Woodside requested the opportunity to discuss options to consult with Tuna Australia and potentially lessen the burden on Tuna Australia for providing feedback on Woodside's EPs.
 - Woodside offered the opportunity to take Tuna Australia through the entire EP portfolio, inclusive of decommissioning, so Tuna Australia could better assess the volume of activities.
 - Woodside reiterated that there was no expectation for Tuna Australia to provide a consultation report on each individual EP, and potentially there is an opportunity for Woodside and Tuna Australia to work together on a more strategic approach.
- On 6 June 2023, Tuna Australia returned Woodside's call regarding an opportunity to meet to discuss a more strategic approach to consultation.
- On 8 June 2023, Tuna Australia returned Woodside's call and asked Woodside to call back on 14 June 2023.
- On 14 June 2023, Woodside returned Tuna Australia's phone call and left a message for Tuna Australia to call back.
- On 20 June 2023, Woodside and Tuna Australia held a meeting to discuss Tuna Australia's Industry Position Statement:
 - Woodside provided an overview of its activities and explained how recent case law and NOPSEMA guidance had resulted in Woodside undertaking consultation on the widest potential 'EMBA'.
 - Tuna Australia agreed to share with Woodside the name of any of the Offshore Sectors' titleholders that have entered into Tuna Australia's service agreement to date.
 - Tuna Australia also agreed to provide more detail on how Tuna Australia will distribute consultation materials to its membership/licence holders and the format of any report arising from the data collected.
 - Woodside committed to review Tuna Australia's Service Agreement
- On 26 June 2023, Woodside emailed Tuna Australia following the meeting held on 20 June 2023 and recapped what was discussed.
- Woodside thanked Tuna Australia for its time and stated it looked forward to continuing work with Tuna Australia.
- Woodside directed Tuna Australia to contact the Woodside Feedback inbox for any further information.
- On 30 June 2023, Tuna Australia's CEO responded to Woodside's email of 26 June 2023. Tuna Australia:
 - Noted outcomes of the recent case law focussed on stakeholder engagement and ensuring energy companies meet regulatory requirements and NOPSEMA guidelines. Requested Woodside send the recent case law.
 - Reached out to energy companies who have executed a services agreement with Tuna Australia and asked whether Tuna Australia could inform Woodside about their working relationship. Beach Energy confirmed it was happy for Tuna Australia to share its details.
 - Advised how it contacts concession holders and what it provides to them.
 - Provided a Tuna Australia contact who manages engagement with energy companies to progress a service agreement with Tuna Australia.
- On 17 July 2023, Woodside emailed Tuna Australia and confirmed:
 - Woodside's legal team had reviewed the Tuna Australia document and requested some minor changes to be made.

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- Woodside asked Tuna Australia if a marked up version of the Service Agreement would be the simplest way for Tuna Australia to review.
- Woodside attached a Supplier Questionnaire as part of its due diligence process and asked Tuna Australia to complete the form.
- On 18 July 2023, Tuna Australia emailed Woodside and confirmed:
 - Woodside should send a marked up version of the Service Agreement for TA to review.
 - Tuna Australia would fill out the Supplier Questionnaire and return in the next couple of days.
- On 18 July 2023, Woodside emailed Tuna Australia and sent a marked-up version of the Service Agreement for Tuna Australia to review.
- On 19 July 2023, Tuna Australia emailed Woodside and thanked it for sending through edits to Tuna Australia's services agreement and commented:
 - Tuna Australia does not want any changes made to Schedule 2 of their Service Agreement and if Woodside has requirements outside of what Tuna Australia provides, then this will need to be discussed, agreed, and costed accordingly.
 - Tuna Australia would like further details on the Annual service for the Woodside Master Existing document including the rationale for the payment proposed.
 - Tuna Australia does not agree to a fixed price for the above bodies of work. Tuna Australia wants clarification on what the Annual service entails, and how the fixed priced value was arrived at.
 - Regarding the fixed fee for delivery of a specific consultation service, Tuna Australia need to remain flexible to clients needs and discuss additional works should they be required. Tuna Australia says it specified in the schedule that it would never proceed with more work or charge more money without approval and this should suffice for Woodside.
 - Tuna Australia does not agree on the current terms which have been changed in Item 2 of Schedule 1 and says it seeks a two year agreement as per the agreement template.
- On 2 August 2023, Woodside emailed Tuna Australia, thanked them for their response re the Service Agreement and advised that Woodside's legal team will review and Woodside will revert as soon as possible. Woodside asked Tuna Australia to please complete the Supplier Questionnaire which was sent on 17 July 2023.
- On 3 August 2023, Tuna Australia replied, apologised for the delay and sent the completed Supplier Questionnaire to Woodside.
- On 8 August 2023, Tuna Australia responded in regard to another EP stating that as per its recent discussions with Woodside, Tuna Australia could consult on the EP once it had a services agreement in place.
- On 23 August 2023, Tuna Australia emailed Woodside following up on Woodside's consultation requirements with the tuna longline industry regarding another EP.
 Tuna Australia asked for clarity on whether Woodside was planning to engage Tuna Australia to consult on behalf of the tuna longline industry on this and other upcoming EPs that Woodside was seeking feedback on
- On 30 August 2023, Woodside emailed Tuna Australia and advised that Tuna Australia's feedback on the Service Agreement had been discussed with Woodside's legal team. Woodside asked for clarity on whether Tuna Australia would accept section 15: Ethical Business Practices. Once this had been accepted, Woodside could work through Tuna Australia's other points.
- On 4 September 2023, Tuna Australia emailed Woodside and advised that it had seen these anti bribery and corruption clauses included in the vendor registration
 process of other energy companies but had not seen it proposed inside an agreement before. Tuna Australia advised it was not against including them in the
 agreement, but asked if it was the best place for it.

Summary of Feedback, Objection or Claim Woodside Energy's Assessment of Merits Feedback, Objection or Claim and its	s of Environment Plan Controls
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Tuna Australia responded, providing Woodside their position statement for engaging with energy companies seeking consultation advice from stakeholders on environmental plans and project proposals.

The position statement requests that where there is the potential for the proposed activity to impact Tuna Australia's functions, interests or activities or that of its members, there is a need for a service agreement to be executed.

Tuna Australia advised the name of another energy company where a service agreement had been executed.

Tuna Australia committed to provide more information on how it would manage consultation distribution and a report under its service agreement.

Tuna Australia and Woodside are working towards completing a service agreement.

Whilst feedback and claims have been received, there were no objections.

Response

The Western Tuna and Billfish Fishery management area overlaps the Operational Area and the EMBA presented in the Scarborough Drilling and Completions (D&C) EP (Section 4.9.2).

- No fishing effort has occurred within or nearby to the Operational Area or EMBA for at least the last ten years, with the nearest fishing effort occurring ~460 km and ~110 km away respectively.
- ABARE (2021) indicates current fishing effort is concentrated between Carnarvon and Albany (2016–2021).
- In the highly unlikely event of a marine diesel spill (represented by the EMBA under a range of different weather conditions), there is considered to be no potential for interaction with the fishery, with its nearest fishing effort ~110 km to the west of the EMBA boundary.

In respect to Tuna Australia's concern around potential interaction, Woodside confirms that it conducts impact and risk assessments for its activities in order to identify and manage environmental impacts and risks, which includes potential interaction with recreational and commercial fishers. In order to manage potential interactions, Woodside has the following controls in place with regard to the PAP of the D&C EP.

- Establishment of a 500 m petroleum safety zone around MODU and installation vessel and communicated to marine users.
- Vessels adhere to regulatory requirements for navigational safety.
- Notification to AHS of activities and movements to allow generation of navigation warnings (Maritime Safety Information Notifications (MSIN) and Notice to Mariners (NTM) (including AUSCOAST warnings where relevant)).

Tuna Australia and Woodside are working towards completing a service agreement.

Woodside has assessed the potential for interaction with Commonwealth and State managed commercial fisheries in Section 4.9.2 of this EP.

Woodside has adopted the following controls to manage potential interactions with commercial fisheries:

- C 4.1 vessels will comply with the Navigation Act and Marine Order 21
- C 4.3 notifications to AHO to allow generation of navigation warnings and Notice to Mariners
- C 4.2 establishment of petroleum safety zone(s)
- C 4.4 AFMA, DAFF Fisheries, DPIRD, WAFIC, CFA, and relevant Fishery Licence Holders that have the potential to be directly impacted by planned activities in the Operational Area will be notified prior to the commencement and at the end of the activity

Woodside has also adopted the following controls to manage the points raised in Tuna Australia's Feedback

 C 6.2 and C 6.1 vessels will comply with Marine orders 95 and 96

Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on Tuna Australia's functions, interests or activities.

No additional measures or controls are required.

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 Vessels comply with regulatory requirements for the prevention of vessel collisions and safety and emergency arrangements.

Woodside also notes the following in relation to the points raised in Tuna Australia's feedback:

- Routine marine MODU and vessel discharges will be managed in accordance with legislative and regulatory requirements (e.g. marine orders)
- All chemicals intended or likely to be discharged into the marine environment reduced to ALARP using the chemical assessment process. Water based mud drill cuttings that are returned to the MODU will be processed using solids control equipment (SCE) equipment. Non-water based muds (NWBM) only used where written justification process has been followed, with no overboard disposal of bulk NWBM. Displacement, brine, workover or intervention fluids contaminated with hydrocarbons will be treated prior to discharge or contained. If discharge specification is not met the fluid will be returned to shore.
- Seabed disturbance will be managed by ensuring infrastructure is placed on the seabed within the predefined design footprint using positioning technology. For an anchored MODU a project specific Mooring Design Analysis will be completed.
- Acoustic emissions from MODU and vessels in field will be managed by complying with regulatory requirements (e.g. EPBC Regulations 2000 – Part 8 Division 8.1), as well as additional adaptive management controls where pygmy blue whales (certain or possible) are observed.

Woodside has provided consultation information to AFMA, DAFF – Fisheries, CFA, ASBTIA, Tuna Australia, WAFIC and individual relevant licence holders.

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Woodside engages in ongoing consultation throughout	
the life of an EP. Woodside notes that further feedback	
may be received as part of ongoing consultation.	
Should feedback be received after the EP has been	
accepted, it will be assessed and, where appropriate,	
Woodside will apply its Management of Change and	
Revision process (see Section 7)	

Scarborough Drilling and Completions Environment Plan

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Other non-government groups or organisations

Doctors for the Environment Australia (DEA)

Summary of information provided and record of consultation:

- On 1 February 2022, during the course of preparing the EP, DEA self-identified and provided comment on the broader Scarborough development and requested to be consulted on the proposed activity.
 - DEA believes it is a relevant organisation due to its membership being comprised of medical professionals who deal with people impacted directly and indirectly by climate change e.g youth, elderly, First Nations people, people from low socioeconomic backgrounds, disabled people, those with disabilities, pre-existing medical conditions and people who live in remote and rural communities.
 - DEA believe that climate change is being called "the greatest global health threat of the 21st century". In Australia, the Australian Medical Association and the Australian College of Nursing have said climate change is a health emergency and that health impacts of climate change threaten to undermine the last centuries progress in public and global health.
 - DEA believe that gas is also recognised as a health threat e.g., gas in domestic premises has been shown to contribute to childhood asthma.
 - DEA believe that gas processing on the Burrup Peninsula will also increase existing levels of nitrogen dioxide, sulphur dioxide, ozone, mercury, other heavy metals and many thousands of tonnes of volatile organic compounds. Air pollutants of this type can cause serious health impacts, including heart disease, stroke, lung cancer, asthma and diabetes, even at low levels of exposure.
- On 25 February 2022, Woodside emailed DEA and included responses to address specific claims and objections raised regarding the proposed activity, where appropriate.
 - Woodside advised that it will assess the self-identification by DEA and the comments received to determine relevancy for the purposes of consultation for future Scarborough EPs when those EPs are being prepared.
 - Woodside provided a link to the publicly available draft EP on the NOPSEMA website which has been available since 13 January 2022.
 - Woodside invited DEA to provide further feedback on the proposed activity.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its	Environment Plan Controls
	Response	
DEA self-identified, provided comment on the broader Scarborough development and requested to be consulted on the proposed activity. DEA provided feedback relating to:	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate.	No additional measures or controls are required.
 Climate change and global impacts to human health. Pollutants produced by gas processing. 	Based on Woodside's methodology for the Assessment of Additional Persons (see Section 5.3.1) Woodside has determined there is no potential for the functions, interests or activities of DEA to be affected by the activities to be carried out under the Environment Plan, or the revision of the Plan.	

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Woodside confirms this EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program (PAP), having regard to the nature and scale of the proposed PAP.

The extraction of Scarborough gas for onshore processing is not within the scope of the activity described in this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the PAP for this EP but may be evaluated in Scarborough EPs as appropriate.

GHG emissions associated with this activity (i.e., fuel combustion from project vessels) are considered in Section 6.7.2

Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).

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Friends of Australian Rock Art. Inc (FARA)

Summary of information provided and record of consultation:

- On 14 January 2022, during the course of preparing the EP, FARA self-identified and provided comment on the broader Scarborough development and requested to be consulted on the proposed activity.
 - FARA believes it is a 'relevant organisation' due to being involved for many years in the preservation and conservation of the Murujuga rock art and surrounding landscape.
 - FARA raised concerns about the broader impacts of the Scarborough Project including climate change impacts and socio-economic pressures on remote and Indigenous communities in the Pilbara.
 - FARA raised concerns regarding damage to the cultural landscape and rock art and impacts on Traditional custodians of Murujuga and the Dampier Archipelago who will be directly impacted (emissions, facilities) and indirectly impacted (noise, view, dust).
 - FARA believes that increased industrial emissions on the Burrup Peninsula will almost certainly compromise the application to have the site added as a World Heritage place.
 - FARA believes its members (local workers in the gas industry and community members) will be affected by atmospheric emissions from offshore drilling, along associated pipelines, during processing, production, transport of the Scarborough gas, and gas used by Perdaman and others on the Burrup Peninsula.
 - FARA raised concerns regarding the marine environment and endangered species.
 - FARA's members want to know:
 - That the Scarborough EPs have considered the impacts from all pollution sources on all potential receptors, and include stringent monitoring and pollution-response programs,
 - That there is a robust decommissioning plan with funds set aside.
- On 28 January 2022, Woodside received correspondence from FARA, via NOPSEMA (letter dated 16 January 2022) providing comment on the broader Scarborough development and requested to be consulted on the proposed activity.
- On 25 February 2022, Woodside emailed FARA:
 - Woodside included advice that Woodside has determined there is no potential for the functions, interests or activities of FARA to be affected by the activities to be carried out under the Environment Plan, or the revision of the Plan.
 - Woodside advised that it will assess the self-identification by FARA and the comments received to determine relevancy for the purposes of consultation for future Scarborough EPs when those EPs are being prepared.
 - Woodside provided a link to the publicly available draft EP on the NOPSEMA website which has been available since 13 January 2022.
 - Woodside invited FARA to provide further feedback on the proposed activity
- On 5 April 2022, FARA responded noting it had since consulted with NOPSEMA and understands Woodside's assessment of FARA's relevance.
 - FARA also commented that it understands it is appropriate for Woodside to consult with FARA for the Scarborough Operations EP.
- On 22 June 2022, FARA provided further comment on the broader Scarborough development.

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- FARA endorses and supports the request made by Murujuga custodians and and that they are 'relevant persons' to be consulted by Woodside on the Scarborough gas project.
- FARA stated it also has relevant person status as Murujuga's rock art will be indirectly impacted by the proposed development.
- FARA claimed acidic emissions from Woodside's JV site at Karratha Gas Plant have been impacting on the fragile patina of the adjoining petroglyphs and emissions from Scarborough activities will further increase this impact. Using scrubber technology advocated by FARA has never been adopted by Woodside due to costs.
- With the proposal to process additional gas for another 25 years using the aging infrastructure of the Karratha Gas Plant, FARA sees it as extremely urgent that Woodside's emissions-control technology, and that of the two Pluto plants, is updated to world standards in order to substantially reduce its toxic NOx and SOx emissions.
- FARA wishes to be consulted by Woodside on all EPs pertaining to developments which would cause or lead to damage (both direct and indirect impacts) to Murujuga's rock art.
- On 22 July 2022, Woodside advised FARA that the previous advice provided on 25 February 2022 still applies.
 - Woodside confirmed it makes information on each of its EPs publicly available via its website. Woodside also confirmed it continues to accept feedback on the EPs which are made publicly available by the regulator upon initial submission and final acceptance and remain available online following final acceptance.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
FARA self-identified and provided comment on the broader Scarborough development. FARA's feedback relating to: Relevant person Murujuga rock art and surrounding landscape Climate change Socio-economic pressures on remote and Indigenous communities Direct and indirect impacts on Traditional custodians of Murujuga and the Dampier Archipelago Burrup Peninsula's World Heritage listing application compromised Their members being affected by impacts of	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate. Based on Woodside's methodology for the Assessment of Additional Persons (see Section 5.3) Woodside has determined there is no potential for the functions, interests or activities of FARA to be affected by the activities to be carried out under the Environment Plan, or the revision of the Plan. Woodside confirms this EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program (PAP), having regard to the nature and scale of the proposed PAP. The extraction of Scarborough gas for onshore processing is not within the scope of the activity	No additional measures or controls are required.
emissions from Scarborough activities	described in this EP. Therefore, indirect impacts and risks arising from the onshore processing of	

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The impacts to marine environment ar endangered species Impacts from all pollution sources on all potentireceptors.	impacts/risks of the PAP for this EP but may be	
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Lock The Gate Alliance (LTGA)

Summary of information provided and record of consultation:

- On 4 February 2022, during the course of preparing the EP, LTGA self-identified and provided comment on the broader Scarborough development and requested to be consulted on the proposed activity:
 - LTGA believes it is a relevant organisation which will be affected by the Scarborough development. Its members, especially those who live in the Pilbara and Kimberley, those who depend on groundwater, and those who live in areas subject to flooding (especially the Kimberley), will be affected by climate change which will be increased by the project.
 - LTGA commented that the development will produce carbon emissions over the next 25 years, impacting climate change and socioeconomic pressures which will directly affect LTGA and its supporters.
 - LTGA believe that the Scarborough development will lead to damage to the National Heritage values of the Burrup Peninsula.
- On 25 February 2022, Woodside emailed LTGA and included responses to address specific claims and objections raised regarding the proposed activity, where appropriate.
 - Woodside advised it had assessed the self-identification by LTGA and the comments received to determine relevancy for the purposes of consultation for future Scarborough EPs when those EPs are being prepared.
 - Woodside provided a link to the publicly available draft EP on the NOPSEMA website which has been available since 31 August 2021.
 - Woodside invited LTGA to provide further feedback on the proposed activity.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of	Environment Plan Controls
	Feedback, Objection or Claim and its Response	
LTGA self-identified, provided comment on the broader Scarborough development and requested to be consulted on the proposed activity. LGTA provided feedback relating to:	Feedback has been assessed on merit as it applies to this EP and a summary of responses has been provided to address specific claims and objections raised on the proposed activity, where appropriate.	No additional measures or controls are required.

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•	Socio-economic impacts of climate change and carbon emissions on its members	Based on Woodside's methodology for the Assessment of Additional Persons (see Section 5.3) Woodside has	
•	Damage to National Heritage values of the Burrup Peninsula.	determined there is no potential for the functions, interests or activities of LTGA to be affected by the activities to be carried out under the Environment Plan, or the revision of the Plan.	
		Woodside confirms this EP assesses both direct and indirect impacts and risks associated with the proposed Petroleum Activities Program (PAP), having regard to the nature and scale of the proposed PAP.	
		The extraction of Scarborough gas for onshore processing is not within the scope of the activity described in this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the PAP for this EP but may be evaluated in Scarborough EPs as appropriate.	
		Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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Australasian Centre for Corporate Responsibility (ACCR)

Summary of information provided and record of consultation:

- On 30 September 2022, Woodside emailed ACCR advising that Woodside had identified that ACCR had referred to the Scarborough Project in an online public campaign. Woodside attached a Consultation Information Sheet on the proposed activity and stated that it had reviewed the online campaign and noted that content generally related to impacts and risks of the Scarborough Project to climate change and GHGs.
 - Woodside confirmed that concerns related to carbon and the impact on climate change from Scarborough gas were not relevant to this EP.
 - Woodside also confirmed this EP assesses both direct and indirect impacts and risks associated with the proposed PAP and that the extraction of Scarborough gas for onshore processing is not within the scope of this activity. Therefore the risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks of the PAP for this EP but may be evaluated in Scarborough EPs as appropriate. GHG emissions associated with the D&C activity (i.e., fuel combustion from project vessels) are considered in the publicly available EP.
 - Woodside welcomed the opportunity to meet with ACCR and noted that after 14 October 2022, consultation would be ongoing and feedback would be accepted throughout the life of the EP.
- On 7 October 2022, Woodside sent a courtesy email reminder to ACCR and attached a Consultation Information Sheet requesting a response by 14 October 2022.
- On 10 October 2022, Woodside followed up with ACCR via email and confirmed no response had been received.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the ACCR public website that cover topics relevant to the proposed activity, where appropriate and provided responses to ACCR (shown above).	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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The Climate Council (TCC)

Summary of information provided and record of consultation:

- On 30 September 2022, Woodside emailed TCC advising of the proposed activity and provided a Consultation Information Sheet.
- On 7 October 2022, Woodside sent a courtesy email reminder to The Climate Council and attached a Consultation Information Sheet requesting a response by 14 October 2022.
- On 10 October 2022, Woodside followed up with TCC via email and confirmed no response had been received.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the TCC public website that cover topics relevant to the proposed activity, where appropriate and provided responses to TCC (shown above). Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

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World Wildlife Fund (WWF) Australia

Summary of information provided and record of consultation:

- On 19 September 2022, WWF sent an automatic reply to Woodside acknowledging an email for another EP had been received.
- On 30 September 2022, Woodside emailed WWF (Appendix F, Reference 1.20) advising of the proposed activity and provided a Consultation Information Sheet.
- On 7 October 2022, Woodside sent a courtesy email reminder to WWF and attached a Consultation Information Sheet requesting a response by 14 October 2022.
- On 10 October 2022, Woodside followed up with WWF via email and confirmed no response had been received.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the WWF public website that cover topics relevant to the proposed activity, where appropriate and provided responses to WWF (shown above).	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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Extinction Rebellion WA (XRWA)

Summary of information provided and record of consultation:

- On 30 September 2022, Woodside emailed XRWA to advise that Woodside had identified that XRWA had referred to the Scarborough Project in an online public campaign. Woodside advised it had submitted an EP for this activity and attached a Consultation Information Sheet. Woodside stated it had reviewed the online campaign and noted content generally related to impacts and risks in relation to climate change, GHG emissions, rock art and Aboriginal cultural heritage. Woodside addresses these concerns in the email.
- On 7 October 2022, Woodside emailed XRWA with a reminder and the Consultation Information Sheet.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the XRWA public website that cover topics relevant to the proposed activity, where appropriate and provided responses to XRWA (shown above).	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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International Fund for Animal Welfare (IFAW)

Summary of information provided and record of consultation:

- On 30 September 2022, Woodside emailed IFAW advising of the proposed activity (Appendix F, Reference 1.21) and provided an updated Consultation Information Sheet
- On 7 October 2022, Woodside sent a courtesy email reminder to IFAW and attached a Consultation Information Sheet requesting a response by 14 October 2022.
- On 10 October 2022, Woodside followed up with IFAW via email and confirmed no response had been received.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the IFAW public website that cover topics relevant to the proposed activity, where appropriate and provided responses to IFAW (shown above).	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	

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Market Forces

Summary of information provided and record of consultation:

- On 30 September 2022, Woodside emailed Market Forces to advise it had identified that Market Forces has referred to the Scarborough Project in an online public
 campaign. Woodside advised it had submitted an EP to NOPSEMA for the proposed activity. A Consultation Information Sheet for this EP was attached.
 - Woodside advised it had reviewed the online campaign and noted the content generally related to impacts and risks of the Scarborough Project to climate change, GHGs, rock art, Aboriginal cultural heritage and an unplanned oil spill.
 - Woodside confirmed that concerns related to carbon and the impact on climate change from Scarborough gas are not relevant to this EP.
 - Woodside also confirmed this EP assesses both direct and indirect impacts and risks associated with the proposed PAP. The extraction of Scarborough gas for onshore processing is not within the scope of the activity described in this EP. Therefore, indirect impacts and risks arising from the onshore processing of Scarborough gas are not considered indirect impacts/risks for this EP but may be evaluated in Scarborough EPs as appropriate. GHG emissions associated with the proposed activity (ie fuel combustion from project vessels) are considered in the publicly available EP.
 - On rock art and Aboriginal cultural heritage, Woodside confirmed the activities covered by this EP are located ~430 km away from Murujuga and will have no
 impact on access to sites of cultural and spiritual significance.
 - Emissions from the activities covered by this EP are of a scale and physical remoteness from Murujuga's rock art that no credible impact pathway is foreseen.
 - No rock art will be displaced as a result of the proposed PAP and damage to heritage sites is not anticipated. Woodside has undertaken archaeological assessments and ethnographic surveys to identify cultural heritage that may be impacted by the Scarborough development.
 - Regarding assessment on marine diesel spill risk, Woodside confirmed that Unplanned Activities from the proposed activity are assessed in the publicly available FP.
- On 7 October 2022, Woodside sent a courtesy email reminder to Market Forces and attached a Consultation Information Sheet requesting a response by 14 October 2022
- On 10 October 2022, Woodside followed up with Market Forces via email and confirmed no response had been received.
- On 10 October 2022, Market Forces emailed Woodside noting it would like to continue to receive correspondence regarding EPs for Woodside projects and the opportunity to consult and provide feedback on those plans.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside has assessed claims and objections raised on the Market Forces public website that cover topics relevant to the proposed activity, where appropriate and provided responses to Market Forces (shown above).	No additional measures or controls are required.
	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the	

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EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	
enange and revision process (see Section 1).	

Research Institutes and Local Conservation Groups or Organisations

University of Western Australia (UWA)

Summary of information provided and record of consultation:

Historical Engagement

- On 11 November 2022, Woodside emailed UWA advising of the other proposed Scarborough activities Woodside asked for details of any research activities UWA is undertaking that may overlap with the proposed activities.
- On 17 November 2022, UWA emailed Woodside:
 - UWA undertook a Multibeam Survey of the Madeline Shoals and, although it captured most of the area, the geology appears to continue north into the Dampier Marine Park.
 - The northern tip of UWA's MBES survey mapped outcropping igneous rock on the seabed is 1.3 km south of the Borrow Grounds SW boundary.
 - UWA has heard from Oceanic Offshore that they know of other hardgrounds north of the Madeline Shoals but they did not have the time to follow up on their lead.
 - UWA also noted it has a Parks Australia Grant to undertake habitat mapping of the Dampier Marine Park (early 2023) and it is to investigate the extent of the hard rocky terrains within this zone.
- On 18 November 2022, UWA emailed Woodside:
 - UWA also shared that the Madeleine Shoals have been added to the cultural landscape boundaries of the World heritage nomination dossier.
- On 14 December 2022, Woodside emailed UWA in response to an email regarding Woodside's Scarborough State EP and arranged a time to meet.

Sufficient Time and Sufficient Information

- On 15 December 2022, Woodside met with representatives from UWA via video conference to provide a briefing on the broader Scarborough Project activities and related EPs. During its meeting UWA confirmed:
 - In general, Woodside's offshore activities are out of the scope of interest for UWA; however, it has a particular interest in the Madeleine Shoals and the adjacent borrow ground in Commonwealth waters;
 - There is a lack of data on terrain outside of the current mapping on Madeleine Shoals that, while unlikely, may extend north (towards the borrow ground area);
 - The full extent of the terrain was not captured given time and cost constrains; and,
 - The current mapping has the Shoals mapped ~100 m from the marine park boundary and ~1.3 km from the borrow ground boundary.
 - UWA also acknowledged Woodside may already have mapping of the borrow ground that indicates no exposed rock or hard material.
 - Woodside confirmed extensive studies of the borrow ground and adjacent marine park found no hard material and a substantial depth of sand.
 - UWA concluded it has submitted for additional funding for further exploration of Madeleine Shoals.

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•	On 6 February 2023, Woodside	emailed UWA advising of the p	roposed activity (Appendix F, Referenc	ce 1.58) and provided an updated	d Consultation Information Sheet.
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Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls	
UWA has advised that the proposed Scarborough activities are predominantly outside the scope of interest for UWA. Whilst feedback has been received, there were no objections or claims.	Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.	

Western Australian Marine Science Institution (WAMSI)

Summary of consultation provided and responses:

- On 3 February 2023, Woodside emailed WAMSI advising of the proposed activity (Appendix F, Reference 1.54) and provided an updated Consultation Information Sheet.
 - Woodside also asked for details of any research activities WAMSI is undertaking that may overlap with the proposed activity.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.70).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

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Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Summary of information provided and record of consultation:

- On 6 February 2023, Woodside emailed CSIRO advising of the proposed activity and provided an updated Consultation Information Sheet (Appendix F, Reference 1.57).
 - Woodside also asked for details of any research activities CSIRO is undertaking that may overlap with the proposed activity.
- On 22 February 2023, Woodside sent a follow up email (Appendix F, Reference 1.80).

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
No feedback, objections or claims received despite follow up.	Woodside engages in ongoing consultation throughout the life of an EP. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

Australian Institute of Marine Science (AIMS)

Summary of information provided and record of consultation:

- On 6 February 2023, Woodside emailed AIMS advising of the proposed activity (Appendix F, Reference 1.60) and provided an updated Consultation Information Sheet. Woodside also asked for details of any research activities AIMS is undertaking that may overlap with the proposed activity.
- On 9 February 2023, AIMS emailed Woodside thanking it for the opportunity to consider the proposed activity. AIMS confirmed there are no overlaps with planned AIMS science activities in the area.

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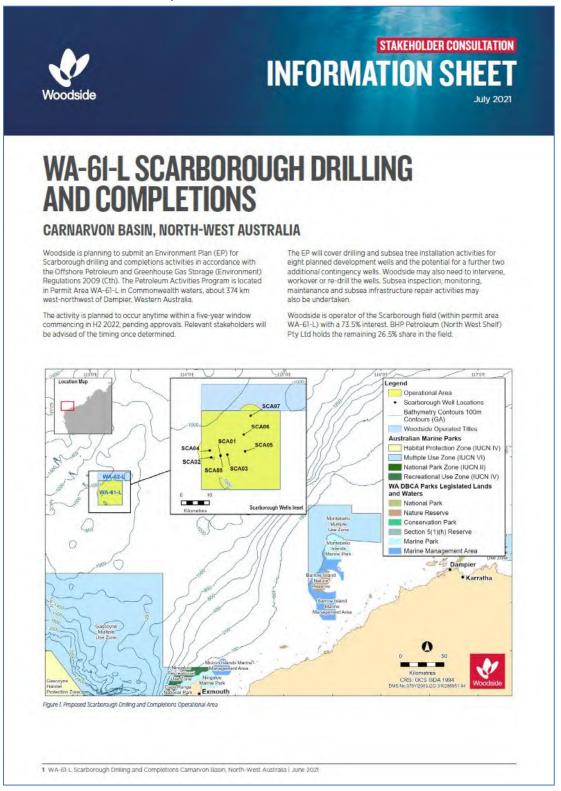
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Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Environment Plan Controls
AIMS provided feedback to Woodside and confirmed there are no overlaps with planned AIMS science activities in the area. Whilst feedback has been received, there were no objections or claims.	Woodside noted AIMS' feedback that there were no overlaps with research activities in the area. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing consultation. Should feedback be received after the EP has been accepted, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7).	No additional measures or controls are required.

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1. CONSULTATION

1.1 Woodside Consultation Information Sheet (July 2021) (sent to all relevant stakeholders)



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Table 2 - Proposed well locations

Activity	Water Depth (Approx. m LAT)	Latitude	Longitude	Permit Area
New development wells				
SCA01 well	910	19° 53′ 30.499″ S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53′ 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53′ 18.551″ S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13′ 24.437" E	WA-61-L
SCA06 well	902	19° 49° 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45′ 52.900" S	113° 14′ 27.449″ E	WA-61-L
SCA08 well	909	19° 53′ 27.254″ S	113° 08' 43.647"E	WA-61-L
Contingent wells		Within p	ermit area WA-61-L	

Table 3 - Summary of key risks and/or impacts and management measures.

Potential Risk and/or Impact	Mitigation and/or Management Measure
Planned activities	
Interests of relevant stakeholders with respect to: Defence activities Petroleum activities	 Consultation with relevant petroleum titleholders, commercial fishers and their representative organisations, and government departments and agencies to inform decision making for the proposed activity and development of the EP.
 Commercial fishing activities 	 Advice to relevant stakeholders prior to the commencement of activities
Shipping activities	 All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and an subsequent Marine Orders.
Chemical use	 Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.
Marine fauna interactions	 Vessel masters will implement interaction management actions in accordance with the EPBC Regulations 2000.
Marine discharges	 All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performanc Standards where applicable.
	 Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.
Seabed disturbance	 Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance.
	 MODU mooring analysis and anchor deployment in accordance with internal standards.
	 No anchoring of support and installation vessels during drilling, construction and installation activities.
Vessel interaction	 Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity.
	 A 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities.
	 Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a DPMODU or 4000 m radius for moored MODU, and a 1500 m radius around subsea installation vessel.
Waste management	 Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste Management Plan.
	 Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment.
	 Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.

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Potential Risk and/or Impact	Mitigation and/or Management Measure
Unplanned activities	
-lydrocarbon release	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels.
	 Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities.
	 Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment.
	 Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include:
	Blowout Preventer (BOP) installation during drilling operations.
	Regular testing of BOP.
ntroduction of invasive marine species	 All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species.
	 Compliance with Australian biosecurity requirements and guidance.
	 Contracted vessels comply with Australian ballast water requirements.

Providing Feedback

Our intent is to minimise environmental and social impacts associated with the proposed activities, and we are seeking any interest or comments you may have to inform our decision making. If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information please contact Woodside hefore 2 August 2021.

Please note that your feedback and our response will be included in our Environment Plan for the proposed activity, which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth). Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan for this information to remain confidential to NOPSEMA

Woodside Energy Ltd

E: Feedback@woodside.com.au | Toll free: 1800 442 977

Please note that stakeholder feedback will be communicated to NOPSEMA as required under legislation. Woodside will communicate any material changes to the proposed activity to affected stakeholders as they arise.



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1.2 Email sent to the following relevant stakeholders DISER, ABF, DMIRS, DoT, DBCA, APPEA (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found $\underline{\text{here}}$.

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

• Dynamically Positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

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Vessels:

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developn	nent wells			
SCA01 well	910	19° 53′ 30.499″ S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.

Regards,

Developments

1.3 Email sent to AHO (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions

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activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map showing vessel density is also attached for reference.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Vessels:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

• Dynamically Positioned MODU/drillship – 500 m radius from each well centre; or

Subsea installation activities:

• Installation vessel - 1500 m radius around subsea locations

• Moored MODU – 4,000 m radius from each well centre.

Marine notices will be issued prior to activity commencement to alert

vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the wells which

include a moored semi-submersible MODU, a dynamically positioned drill

ship or a Dynamically Positioned MODU.

A subsea installation vessel will be used for the installation of the subsea

infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance

and repair activities.

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Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area		
New development wells						
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L		
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L		
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L		
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L		
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L		
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L		
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L		
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L		
Contingent wells – located within permit area WA-61-L						

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



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1.4 Shipping lanes map sent to AHO and AMSA (2 July 2021)



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1.5 Email sent to AMSA (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website. A map showing vessel density is also attached for reference.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

• Dynamically Positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert

vessels which may be operating in waters nearby.

Vessels: Woodside is currently considering rig options for drilling of the wells which

include a moored semi-submersible MODU, a dynamically positioned drill

ship or a Dynamically Positioned MODU.

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A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area			
New development wells							
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L			
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L			
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L			
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L			
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L			
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L			
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L			
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L			
Contingent wells – located within permit area WA-61-L							

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



1.6 Email sent to DoD (2 July 2021)

Dear Department of Defence,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity,

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including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map of practice and training defence areas is also attached.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

 Dynamically Positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert

vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the wells which

include a moored semi-submersible MODU, a dynamically positioned drill

ship or a Dynamically Positioned MODU.

A subsea installation vessel will be used for the installation of the subsea

infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance

and repair activities.

Scarborough Well Locations:

Vessels:

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Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developn	nent wells			
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
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SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent we	Contingent wells – located within permit area WA-61-L			

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

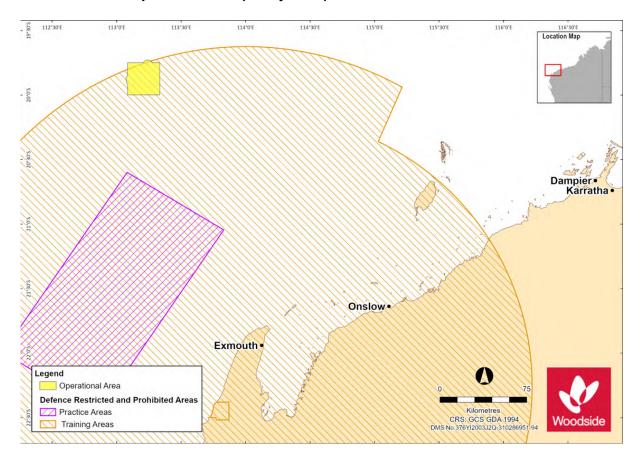
Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



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1.7 Defence map sent to DoD (2 July 2021)



1.8 Email sent to DNP (2 July 2021)

Dear Director of National Parks.

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

An EP for this activity will be submitted in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

Implications for Parks Australia interests

We note Australian Government Guidance on consultation activities with respect to the proposed activities and confirm that:

 We have assessed potential impacts and risks to AMPs in the development of the proposed Environment Plan for this activity and believe that there are no credible impacts associated with planned activities that have potential to impact marine park values.

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- In the unlikely event of a hydrocarbon release there is risk of hydrocarbons contacting
 the Abrolhos, Carnarvon Canyon, Gascoyne and Ningaloo AMPs. The worst-case credible
 spill scenario assessed for this activity is a marine diesel oil spill resulting from the highly
 unlikely event of a vessel collision.
- A Commonwealth Government approved oil spill response plan will be in place for the
 duration of the activities, which includes notification to relevant agencies and organisations
 as to the nature and scale of the event, as soon as practicable following an occurrence. The
 Director of National Parks will be advised if an environmental incident occurs that may
 impact on the values of a marine park.

A Consultation Information Sheet about the planned activity is attached, which provides background on the activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website.

More information on the Scarborough development can be found here .

In line with Australian Government guidance on consultation with government agencies, can you please advise within 10 business days if you have any feedback on the proposed activity, noting that your feedback and our response will be included in an Environment Plan for consideration by the National Offshore Petroleum Safety and Environmental Management Authority, as is required under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).

We would also be happy to meet online should you wish to discuss the proposed activity in more detail.

Regards, | Developments

1.9 Email sent to Chevron, Western Gas, ExxonMobil and Shell (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map showing the proposed activity relevant to adjacent petroleum titles is also attached.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here.

Activity:

Summary:

Drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional

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contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

 Dynamically Positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert

vessels which may be operating in waters nearby.

Vessels: Woodside is currently considering rig options for drilling of the wells which

include a moored semi-submersible MODU, a dynamically positioned drill

ship or a Dynamically Positioned MODU.

A subsea installation vessel will be used for the installation of the subsea

infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance

and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developn	nent wells			
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45′ 52.900″ S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L

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Contingent wells - located within permit area WA-61-L

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

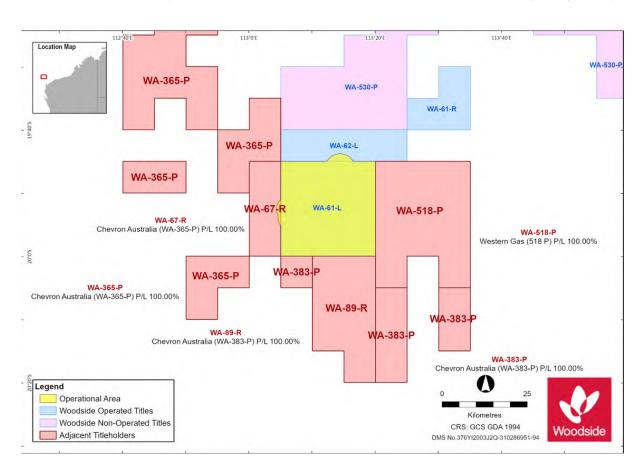
Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



1.10 Titleholders map sent to Chevron, Western Gas, ExxonMobil, Shell (2 July 2021)



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1.11 Email sent to Western Deepwater Trawl Licence Holders (2 July 2021)

Dear Licence Holder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website. A map of relevant fisheries is also attached.

Woodside is currently considering rig options for drilling of the wells which include a moored semisubmersible mobile offshore drilling unit (MODU), a dynamically positioned drill ship or a dynamically positioned MODU. A temporary petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. Marine users are requested to avoid this area during activity to ensure the safety of the project vessels and third-party vessels.

We have identified potential impacts to commercial fishers and the environment and have endeavoured to reduce these risks to as low as reasonably practicable. Fisheries have been identified as being relevant based on fishing area overlap with the activity area, assessment of government fishing effort data from recent years, fishing methods and water depth.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

244 km north-northwest of Exmouth, 374 km west-northwest of Location:

Dampier

~ 900 m - 955 m Approx. Water Depth (m):

Schedule: H2 2022 pending approvals, vessel availability and weather

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

day, seven days per week.

Relevant fisheries: Commonwealth:

Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone:

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A temporary petroleum safety zone (exclusion zone) of 500 m will be in place around the MODU and installation vessel for the

duration of activities.

The following Operational Areas will also apply:

Drilling activities:

• Dynamically positioned MODU/drillship – 500 m radius from each well centre: or

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• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel - 1500 m radius around subsea locations

Vessels:

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby. Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

oour borough	Scarborough well Locations:				
Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area	
New developr	nent wells				
SCA01 well	910	19° 53′ 30.499″ S	113° 08' 43.568" E	WA-61-L	
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L	
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L	
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L	
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L	
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L	
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L	
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L	
Contingent wells – located within permit area WA-61-L					

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk and/or Impact	Mitigation and/or Management Measure
Planned activities	
Interests of relevant stakeholders with respect to:	Consultation with petroleum titleholders, commercial
Defence activitiesPetroleum activities	fishers and their representative organisations, and government departments and agencies to inform
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 Commercial fishing activities Shipping activities 	 decision making for the proposed activity and development of the EP. Advice to relevant stakeholders prior to the commencement of activities.
	All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders.
Chemical use	Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.
Marine discharges	 All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable. Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.
Seabed disturbance	 Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance. MODU mooring analysis and anchor deployment in accordance with internal standards. No anchoring of support and installation vessels during drilling, construction and installation activities.
Vessel interaction	 Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity. A temporary 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities
	Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a DPMODU or 4000 m radius for a moored MODU, and a 1500 m radius around subsea installation vessel.
Waste management	Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste Management Plan.

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	 Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment. Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.
Unplanned activities	
Hydrocarbon release	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels. Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities. Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment. Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include: Blowout Preventer (BOP) installation during
Introduction of invasive marine species	 All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species. Compliance with Australian biosecurity requirements and guidance. Contracted vessels comply with Australian ballast water requirements.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 12 August 2021.

Regards

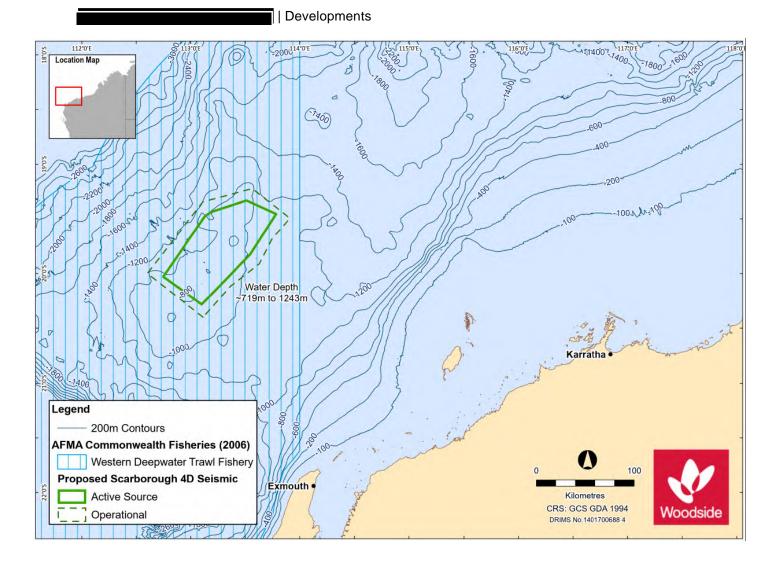
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1.12 Email sent to CFA (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website. A map of relevant fisheries is also attached.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible mobile offshore drilling unit (MODU), a dynamically positioned drill ship or a dynamically positioned MODU. A temporary petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. Marine users are requested to avoid this area during activity to ensure the safety of the project vessels and third-party vessels.

We have identified potential impacts to commercial fishers and the environment and have

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endeavoured to reduce these risks to as low as reasonably practicable. Fisheries have been identified as being relevant based on fishing area overlap with the activity area, assessment of government fishing effort data from recent years, fishing methods and water depth.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of

Dampier

Approx. Water Depth (m): ~ 900 m - 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather

constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

day, seven days per week.

Relevant fisheries: Commonwealth:

Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone:

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A temporary petroleum safety zone (exclusion zone) of 500 m will be in place around the MODU and installation vessel for the duration of activities.

The following Operational Areas will also apply:

Drilling activities:

• Dynamically positioned MODU/drillship - 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel - 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Woodside ID: 1401382459

Vessels: Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a

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dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developi	ment wells			
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
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SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk and/or Impact **Mitigation and/or Management Measure** Planned activities Consultation with petroleum titleholders, commercial fishers and their representative organisations, and Interests of relevant government departments and agencies to inform stakeholders with respect to: decision making for the proposed activity and development of the EP. Defence activities • Petroleum activities Advice to relevant stakeholders prior to the Commercial fishing commencement of activities. activities · Shipping activities All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders.

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Chemical use	 Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.
Marine discharges	 All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable. Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.
Seabed disturbance	 Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance. MODU mooring analysis and anchor deployment in accordance with internal standards.
	 No anchoring of support and installation vessels during drilling, construction and installation activities.
	 Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity.
Vessel interaction	A temporary 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities
	Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a DPMODU or 4000 m radius for a moored MODU, and a 1500 m radius around subsea installation vessel.
	Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste Management Plan.
Waste management	Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment.
	Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.

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Unplanned activities	
	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels.
	 Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities.
Hydrocarbon release	Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment.
	 Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include: Blowout Preventer (BOP) installation during drilling operations. Regular testing of BOP.
	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species.
Introduction of invasive marine species	Compliance with Australian biosecurity requirements and guidance.
	Contracted vessels comply with Australian ballast water requirements.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



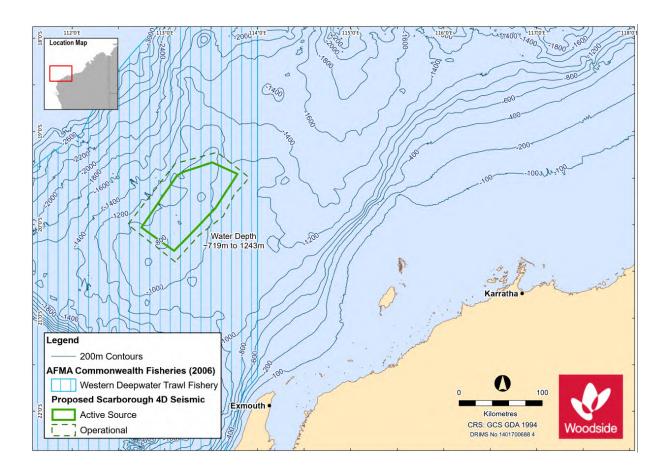
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1.13 Email sent to AFMA (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our website. A map of relevant fisheries is also attached.

Woodside is currently considering rig options for drilling of the wells which include a moored semisubmersible mobile offshore drilling unit (MODU), a dynamically positioned drill ship or a dynamically positioned MODU. A temporary petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. Marine users are requested to avoid this area during activity to ensure the safety of the project vessels and third-party vessels.

We have identified potential impacts to commercial fishers and the environment and have endeavoured to reduce these risks to as low as reasonably practicable. Fisheries have been identified as being relevant based on fishing area overlap with the activity area, assessment of government fishing effort data from recent years, fishing methods and water depth.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing

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four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of

Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather

constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

day, seven days per week.

Relevant fisheries: Commonwealth:

• Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone:

Vessels:

A temporary petroleum safety zone (exclusion zone) of 500 m will be in place around the MODU and installation vessel for the

duration of activities.

The following Operational Areas will also apply:

Drilling activities:

 Dynamically positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the

wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned

MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

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Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

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Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developn	nent wells			
SCA01 well	910	19° 53′ 30.499″ S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53′ 48.471″ S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
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SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk and/or Impact	Mitigation and/or Management Measure
Planned activities	
Interests of relevant stakeholders with respect to: • Defence activities • Petroleum activities • Commercial fishing activities • Shipping activities	 Consultation with petroleum titleholders, commercial fishers and their representative organisations, and government departments and agencies to inform decision making for the proposed activity and development of the EP. Advice to relevant stakeholders prior to the commencement of activities. All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders.
Chemical use	Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.
Marine discharges	All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance
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	Standards where applicable.
	Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.
	Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance.
Seabed disturbance	MODU mooring analysis and anchor deployment in accordance with internal standards.
	No anchoring of support and installation vessels during drilling, construction and installation activities.
	Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity.
	A temporary 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities
Vessel interaction	
	Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a DPMODU or 4000 m radius for a moored MODU, and a 1500 m radius around subsea installation vessel.
	Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste Management Plan.
Waste management	Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment.
	Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.
Unplanned activities	
Hydrocarbon release	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels.

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 Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities. Appropriate refuelling procedures and equipment will
 Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include: Blowout Preventer (BOP) installation during drilling operations. Regular testing of BOP.
 All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species.
 Compliance with Australian biosecurity requirements and guidance. Contracted vessels comply with Australian ballast water requirements.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



1.14 Email sent to WAFIC (2 July 2021)

Dear

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of

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Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map of relevant fisheries is also attached.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible mobile offshore drilling unit (MODU), a dynamically positioned drill ship or a Dynamically Positioned MODU. A temporary petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. Marine users are requested to avoid this area during activity to ensure the safety of the project vessels and third-party vessels.

We have identified potential impacts to commercial fishers and the environment and have endeavoured to reduce these risks to as low as reasonably practicable. Fisheries have been identified as being relevant based on fishing area overlap with the activity area, assessment of government fishing effort data from recent years, fishing methods and water depth.

We welcome WAFIC's feedback on the activity and information provided by 2 August 2021, and subject to this feedback, we will consult individual relevant Licence Holders.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of

Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather

constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

day, seven days per week.

Relevant fisheries: Commonwealth:

• Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone:

A temporary petroleum safety zone (exclusion zone) of 500 m will be in place around the MODU and installation vessel for the

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duration of activities.

The following Operational Areas will also apply:

Drilling activities:

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- Dynamically positioned MODU/drillship 500 m radius from each well centre; or
- Moored MODU 4,000 m radius from each well centre.

Subsea installation activities:

Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
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SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk and/or Impact Mitigation and/or Management Measure

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Vessels:

Planned activities	
Interests of relevant stakeholders with respect to: • Defence activities • Petroleum activities • Commercial fishing activities • Shipping activities	 Consultation with petroleum titleholders, commercial fishers and their representative organisations, and government departments and agencies to inform decision making for the proposed activity and development of the EP. Advice to relevant stakeholders prior to the commencement of activities. All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders.
Chemical use	Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.
Marine discharges	 All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable. Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.
Seabed disturbance	 Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance. MODU mooring analysis and anchor deployment in accordance with internal standards. No anchoring of support and installation vessels during drilling, construction and installation activities.
Vessel interaction	 Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity. A temporary 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities. Commercial fishers and other marine users are
	permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a

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	DPMODU or 4000 m radius for a moored MODU, and a 1500 m radius around subsea installation vessel.
	Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste Management Plan.
Waste management	Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment.
	 Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.
Unplanned activities	
,	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels.
	 Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities.
Hydrocarbon release	Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment.
	Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include: Blowout Preventer (BOP) installation during drilling operations. Regular testing of BOP.
	All vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species.
Introduction of invasive marine species	Compliance with Australian biosecurity requirements and guidance.
	Contracted vessels comply with Australian ballast water requirements.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to

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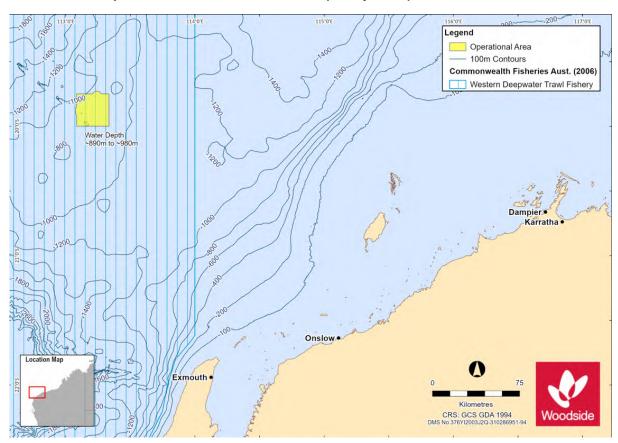
submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.



1.15 Fisheries map sent to WAFIC, AFMA, CFA, DPIRD, DAWE, PPA, Western Deepwater Trawl Licence Holders (2 July 2021)



1.16 Email sent to DPIRD (2 July 2021)

Dear Stakeholder,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

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A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map of relevant fisheries is also attached.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible mobile offshore drilling unit (MODU), a dynamically positioned drill ship or a dynamically positioned MODU. A temporary petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. Marine users are requested to avoid this area during activity to ensure the safety of the project vessels and third-party vessels.

We have identified potential impacts to commercial fishers and the environment and have endeavoured to reduce these risks to as low as reasonably practicable. Fisheries have been identified as being relevant based on fishing area overlap with the activity area, assessment of government fishing effort data from recent years, fishing methods and water depth.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of

Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather

constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

dav, seven davs per week.

Relevant fisheries: Commonwealth:

Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone:

A temporary petroleum safety zone (exclusion zone) of 500 m will be in place around the MODU and installation vessel for the duration of activities.

The following Operational Areas will also apply:

Drilling activities:

 Dynamically positioned MODU/drillship – 500 m radius from each well centre; or

• Moored MODU – 4.000 m radius from each well centre.

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Subsea installation activities:

Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Vessels:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New develop	ment wells	•		
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Potential risks to commercial fishing and proposed mitigation measures:

Potential Risk and/or Impact	Mitigation and/or Management Measure				
Planned activities					
Interests of relevant stakeholders with respect to:	Consultation with petroleum titleholders, commercial fishers and their representative organisations, and				
 Defence activities 	government departments and agencies to inform				

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 Petroleum activities Commercial fishing activities 	decision making for the proposed activity and development of the EP.		
Shipping activities	Advice to relevant stakeholders prior to the commencement of activities.		
	All vessels within the Scarborough activity area will adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders.		
Chemical use	Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints.		
	 All routine marine discharges will be managed according to legislative and regulatory requirements and Woodside's Environmental Performance Standards where applicable. 		
Marine discharges	Drill Cuttings returned to the MODU will only be discharged if requirements relating to treatment and discharge location in the EP are met.		
	Infrastructure will be positioned on the seabed within design footprint to reduce seabed disturbance.		
Seabed disturbance	MODU mooring analysis and anchor deployment in accordance with internal standards.		
	No anchoring of support and installation vessels during drilling, construction and installation activities.		
	Woodside will notify relevant fishery stakeholders and government maritime safety agencies of specific start and end dates, specific vessel-on-location dates and any exclusion zones prior to commencement of the activity.		
	A temporary 500 m radius petroleum safety zone will be in place around the MODU or drill ship and installation vessel for the duration of activities		
Vessel interaction			
	Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Area around the MODU or drill ship. The Operational Area varies depending on the activity and vessel ranging from a 500 m radius for a DPMODU or 4000 m radius for a moored MODU, and a 1500 m radius around subsea installation vessel.		
Waste management	Waste generated on the vessels will be managed in accordance with legislative requirements and a Waste		

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	Management Plan.
	Wastes will be managed and disposed of in a safe and environmentally responsible manner that prevents accidental loss to the environment.
	 Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licensed waste contractor.
Unplanned activities	
	 Valid and appropriate Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) for all operating vessels.
	 Environment Plans and Oil Pollution Emergency Plans (OPEP) will be accepted and in place, appropriate to the credible hydrocarbon spill scenario associated with activities.
Hydrocarbon release	Appropriate refuelling procedures and equipment will be used to prevent spills to the marine environment.
	 Well Operations Management Plan accepted and in place for all wells, in accordance with the Offshore Petroleum and Greenhouse Gas Storage Act requirements, which include: Blowout Preventer (BOP) installation during drilling operations. Regular testing of BOP.
	All vessels will be assessed and managed as appropriate to prevent the introduction of investigation.
	appropriate to prevent the introduction of invasive marine species.
Introduction of invasive marine species	Compliance with Australian biosecurity requirements and guidance.
	Contracted vessels comply with Australian ballast water requirements.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

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Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.

Regards



Dear DAWE,

Woodside is planning to submit an Environment Plan (EP) for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. The Information Sheet is also available on our <u>website</u>. A map of relevant fisheries is also attached.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the Scarborough development can be found here .

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of

Dampier

Approx. Water Depth (m): ~ 900 m − 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather

constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per

day, seven days per week.

Relevant fisheries: Commonwealth:

Western Deepwater Trawl Fishery

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will

be in place around the MODU and installation vessel for the

duration of activities.

The following Operational Areas will also apply:

Drilling activities:

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- Dynamically Positioned MODU/drillship 500 m radius from each well centre; or
- Moored MODU 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a Dynamically Positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Vessels:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developm	ent wells			
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03.300" E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L
SCA07 well	907	19° 45' 52.900" S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Implications for DAWE's interests:

We have identified and assessed potential risks and impacts to active Commonwealth commercial fishers, biosecurity matters and the marine environment that overlap the proposed Operational Area in the development of the proposed Environment Plan for this activity.

Woodside has endeavoured to reduce these risks to an as low as reasonably practicable (ALARP) level.

Commercial fishing implications:

One Commonwealth-managed fishery has been identified as being relevant to the proposed Activity, this being the **Western Deepwater Trawl Fishery**.

Woodside will consult licence holders in this fishery, including the provision of a fact sheet specific to

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commercial fishing interests.

Fisheries were assessed for relevance on the basis of fishing licence overlap with the Operational Area, as well as consideration of government fishing effort data from recent years, fishing methods, and water depth.

Biosecurity implications:

With respect to the biosecurity matters, please note the following information below.

Potential IMS risk

Introduction and establishment of IMS.

IMS mitigation management

Vessels are required to comply with the Australian Biosecurity Act 2015, specifically the Australian Ballast Water Management Requirements (as defined under the Biosecurity Act 2015) (aligned with the International Convention for the Control and Management of Ships' Ballast Water and Sediments) to prevent introducing IMS.

Vessels will be assessed and managed to prevent the introduction of invasive marine species in accordance with Woodside's Invasive Marine Species Management Plan.

Woodside's Invasive Marine Species Management Plan includes a risk assessment process that is applied to vessels undertaking Activities. Based on the outcomes of each IMS risk assessment, Management measures commensurate with the risk (such as the treatment of internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.

Feedback:

If you have any issues or concerns with these activities, any other issues relevant to this location then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 2 August 2021.

Regards

Senior Corporate Affairs Adviser | Developments

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1.18 Email sent to CCWA (20 August 2021)



Thank you for your letter (Scarborough Offshore Gas Project – Upcoming draft Environment Plans – Thursday, 12 August 2021). Woodside consults with relevant stakeholders for all of our activities.

Woodside is planning to submit an Environment Plan (EP) for Scarborough Drilling and Completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Our Consultation Information Sheet for our Scarborough Drilling and Completions activity including feedback details has been on our website since 2 July 2021 and is attached.

The Consultation Information Sheet provides background on the proposed activity, including a summary of potential key risk and associated management measures.

This EP falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. Woodside is proposing four Commonwealth EPs for the Scarborough development and will consult with all relevant stakeholders ahead of each EP.

More information on the proposed Scarborough development can be found here.

If you have any comments about these activities in this location then please respond to Woodside at: Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your feedback by 20 September 2021.

Woodside Feedback

1.19 Email sent to TWS (30 September 2022)

Dear Wilderness Society

Please be advised that Woodside has submitted an <u>Environment Plan</u> to NOPSEMA for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

The drilling and subsea tree installation activities are for eight planned development wells and the potential for a further two additional contingency wells. Activities are planned to commence in H2 2022 for a period of around 50-60 days per well, pending approvals, vessel availability and weather constraints.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet has been available on <u>Woodside's website</u> since July 2021, inviting comments on the proposed activities or requests for additional information. Revision 0 of the EP has been available on the

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NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public).

Noting consultation material has been available since July 2021 and feedback was sought by 2 August 2021, we understand that Wilderness Society has not commented on the proposed activity or sought further information on it. Should you have feedback on the proposed Scarborough Drilling and Completions Environment Plan, please provide your views by **14 October 2022**.

If it would assist with consultation, Woodside would welcome the opportunity to meet with you prior to 14 October 2022, to discuss the Scarborough Drilling and Completions Environment Plan. Should you wish to meet with Woodside, please advise as soon as possible. Beyond this timeframe, consultation is ongoing and feedback is accepted throughout the life of the EP, including while it is being prepared, while it is under assessment as well as after acceptance, while the EP remains in force.

Please note that there will be further consultation opportunities for the other activities undertaken as part of the Scarborough Project. For further information, you can subscribe to Woodside's consultation activities on our website.

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

 Dynamically positioned MODU/drillship – 500 m radius from each well centre: or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Vessels: Woodside is currently considering rig options for drilling of the wells which

include a moored semi-submersible MODU, a dynamically positioned drill

ship or a dynamically positioned MODU.

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A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area
New developn	nent wells			
SCA01 well	910	19° 53' 30.499" S	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19° 53' 48.471" S	113° 06' 55.261" E	WA-61-L
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SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L
Contingent wells – located within permit area WA-61-L				

Feedback:

If you have any issues or concerns with the proposed drilling and completions activities then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 14 October 2022.

Regards

Woodside Feedback

1.20 Email sent to WWF (30 September 2022)

Dear World Wildlife Fund

Please be advised that Woodside has submitted an <u>Environment Plan</u> to NOPSEMA for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

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The drilling and subsea tree installation activities are for eight planned development wells and the potential for a further two additional contingency wells. Activities are planned to commence in H2 2022 for a period of around 50-60 days per well, pending approvals, vessel availability and weather constraints.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet has been available on Woodside's website since July 2021, inviting comments on the proposed activities or requests for additional information. Revision 0 of the EP has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public).

Noting consultation material has been available since July 2021 and feedback was sought by 2 August 2021, we understand that WWF has not commented on the proposed activity or sought further information on it. Should you have feedback on the proposed Scarborough Drilling and Completions Environment Plan, please provide your views by **14 October 2022**.

If it would assist with consultation, Woodside would welcome the opportunity to meet with you prior to 14 October 2022, to discuss the Scarborough Drilling and Completions Environment Plan. Should you wish to meet with Woodside, please advise as soon as possible. Beyond this timeframe, consultation is ongoing and feedback is accepted throughout the life of the EP, including while it is being prepared, while it is under assessment as well as after acceptance, while the EP remains in force.

Please note that there will be further consultation opportunities for the other activities undertaken as part of the Scarborough Project. For further information, you can subscribe to Woodside's consultation activities on our website.

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m − 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

also apply:

Drilling activities:

 Dynamically positioned MODU/drillship – 500 m radius from each well centre: or

• Moored MODU – 4,000 m radius from each well centre.

Subsea installation activities:

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• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Vessels:

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area		
New developn	nent wells					
SCA01 well	910	19° 53′ 30.499″ S	113° 08' 43.568" E	WA-61-L		
SCA02 well	912	19° 53′ 48.471″ S	113° 06' 55.261" E	WA-61-L		
SCA03 well	912	19° 53′ 18.551″ S	113° 10' 03.300" E	WA-61-L		
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L		
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L		
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L		
SCA07 well	907	19° 45′ 52.900″ S	113° 14' 27.449" E	WA-61-L		
SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L		
Contingent wells – located within permit area WA-61-L						

Feedback:

If you have any issues or concerns with the proposed drilling and completions activities then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 14 October 2022.

Regards

Woodside Feedback

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1.21 Email sent to International Fund for Animal Welfare (IFAW) (30 September 2022)

Dear International Fund for Animal Welfare

Please be advised that Woodside has submitted an <u>Environment Plan</u> to NOPSEMA for Scarborough drilling and completions activities located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia.

The drilling and subsea tree installation activities are for eight planned development wells and the potential for a further two additional contingency wells. Activities are planned to commence in H2 2022 for a period of around 50-60 days per well, pending approvals, vessel availability and weather constraints.

A Consultation Information Sheet is attached, which provides background on the proposed activity, including a summary of potential key risks and associated management measures. The Information Sheet has been available on Woodside's website since July 2021, inviting comments on the proposed activities or requests for additional information. Revision 0 of the EP has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public).

Noting consultation material has been available since July 2021 and feedback was sought by 2 August 2021, we understand that International Fund for Animal Welfare has not commented on the proposed activity or sought further information on it. Should you have feedback on the proposed Scarborough Drilling and Completions Environment Plan, please provide your views by **14 October 2022**.

If it would assist with consultation, Woodside would welcome the opportunity to meet with you prior to 14 October 2022, to discuss the Scarborough Drilling and Completions Environment Plan. Should you wish to meet with Woodside, please advise as soon as possible. Beyond this timeframe, consultation is ongoing and feedback is accepted throughout the life of the EP, including while it is being prepared, while it is under assessment as well as after acceptance, while the EP remains in force.

Please note that there will be further consultation opportunities for the other activities undertaken as part of the Scarborough Project. For further information, you can subscribe to Woodside's consultation activities on our website.

Activity:

Summary: Drilling and subsea tree installation activities for eight planned

development wells and the potential for a further two additional

contingency wells.

Location: 244 km north-northwest of Exmouth, 374 km west-northwest of Dampier

Approx. Water Depth (m): ~ 900 m – 955 m

Schedule: H2 2022 pending approvals, vessel availability and weather constraints

Duration: ~ 50-60 days per well. Activities will be conducted 24 hours per day, seven

days per week.

Exclusionary/Cautionary Zone: A temporary petroleum safety zone (exclusion zone) of 500 m will be in

place around the mobile offshore drilling unit (MODU) and installation vessel for the duration of activities. The following Operational Areas will

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also apply:

Drilling activities:

- Dynamically positioned MODU/drillship 500 m radius from each well centre; or
- Moored MODU 4,000 m radius from each well centre.

Subsea installation activities:

• Installation vessel – 1500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

Vessels:

Woodside is currently considering rig options for drilling of the wells which include a moored semi-submersible MODU, a dynamically positioned drill ship or a dynamically positioned MODU.

A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels.

Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Scarborough Well Locations:

Subsea Wells	Water Depth (m)	Latitude	Longitude	Permit Area		
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SCA02 well	912	19° 53′ 48.471″ S	113° 06' 55.261" E	WA-61-L		
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SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L		
SCA05 well	918	19° 52' 38.718" S	113° 13' 24.437" E	WA-61-L		
SCA06 well	902	19° 49' 27.763" S	113° 13' 08.300" E	WA-61-L		
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SCA08 well	909	19° 53' 27.254" S	113° 08' 43.647" E	WA-61-L		
Contingent wells – located within permit area WA-61-L						

Feedback:

If you have any issues or concerns with the proposed drilling and completions activities then please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977

Your feedback and our response will be included in our Environment Plans which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

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Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Please provide your views by 14 October 2022.

Regards

Woodside Feedback

1.22 NOPSEMA public comment period newspaper advertisements (21 October 2022) placed in the Pilbara News, The West Australian and The Australian

Scarborough 4D Baseline Marine Seismic Survey Notice



Woodside Energy Scarborough Pty Ltd is proposing to conduct the Scarborough 4D Baseline Marine Seismic Survey activity in Q3 2022 located in Commonwealth waters adjacent to WA. The activity will be conducted for up to 80 days in an operational area up to 9,200 km2, 214 km north west of Exmouth.

An Environment Plan (EP) for the activity has been prepared in accordance with the regulations administered by NOPSEMA under the Offshore Petroleum and Greenhouse Gas Storage Act 2006. A comment period is open until Wednesday 17 November 2021 providing the public with an opportunity to submit a comment in relation to the EP.

To submit a comment or for further information about the activity see NOPSEMA's website at: Industry environment plans (nopsema.gov.au).

1.23 Email sent to National Energy Resource Australia (NERA) Collaborative Seismic Environment Plan Project (CSEP) (11 November 2022)



Further to the below correspondence regarding Woodside's Scarborough 4D B1 Marine Seismic Survey, please be advised that Woodside has submitted an Environment Plan (EP) to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for the following proposed activities:

- Scarborough Seabed Intervention and Trunkline Installation Environment Plan (SITI EP)
- WA-61-L Scarborough Drilling and Completions (D&C EP)

Woodside has previously submitted Revision 1 of the SITI EP to NOPSEMA. This revision of the EP has been available on the NOPSEMA website since January 2022 (https://info.nopsema.gov.au/environment_plans/575/show_public). Woodside has also previously submitted Revision 0 of the D&C EP to NOPSEMA. This revision of the EP has been available on the

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NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Woodside is preparing an updated revision of the SITI EP and D&C EP for submission to NOPSEMA. We confirm the activities, location and duration described in these revisions remain the same, with no material changes.

Woodside is also proposing to undertake seabed site surveys and installation of subsea production infrastructure within Permit Areas WA-61-L and WA-62-L, about 374 km west-northwest of Dampier, Western Australia under the <u>WA-61-L and WA-62-L Subsea Infrastructure Installation Environment Plan</u> (Subsea EP). This EP has not yet been submitted to NOPSEMA.

A Consultation Information Sheet for each of the activities is linked above, which provides background on the proposed activity, including a summary of potential key risk and associated management measures. They are also available on our <u>website</u>.

The proposed activities under the SITI EP, D&C EP and Subsea EP are planned to be undertaken within a subset of the activity area for the Scarborough Seismic Survey and may be of interest to you.

Each of these EPs fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP) and will be conducted in line with relevant requirements of the OPP. The OPP includes a detailed description of activities and an assessment of impacts; with controls to develop acceptability criteria. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here. Should NERA CESP have feedback on the SITI EP, D&C EP or Subsea EP, please provide your views by **25 November 2022.**

Your feedback and our response will be included in our Environment Plan which will be submitted to NOPSEMA for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

Regards,

Woodside Feedback

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1.24 Presentation to Exmouth Community Reference Group (17 November 2022)

ENVIRONMENT PLANS Scarborough

- State and Commonwealth primary environmental approvals for the Scarborough Project secured
- Project and related activity-specific Environment Plans in development / under NOPSEMA assessment

Scarborough 4D B1 Marine Seismic Survey (Cth)

- · Submitted for assessment October 2021
- Proposal to conduct a 4D baseline marine seismic survey over the Scarborough field within Commonwealth waters, ~ 214 km north-west of Exmouth

Scarborough Drilling and Completions (Cth)

- · Submitted for assessment November 2021
- Proposal for drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional contingency wells, ~244 km north-northwest of Exmouth

Scarborough Seabed Intervention and Trunkline Installation ($\underline{\text{Cth}}$)

- Submitted for assessment Dec 2021
- Proposal for seabed intervention and installation activities for the section of the Scarborough Trunkline in Commonwealth waters that runs ~ 430 km from the proposed offshore Scarborough Floating Production Unit (FPU) (~244 km north-northwest of Exmouth) to the existing onshore Pluto LNG facility on the Burrup Peninsula

Scarborough Subsea Infrastructure Installation (Cth)

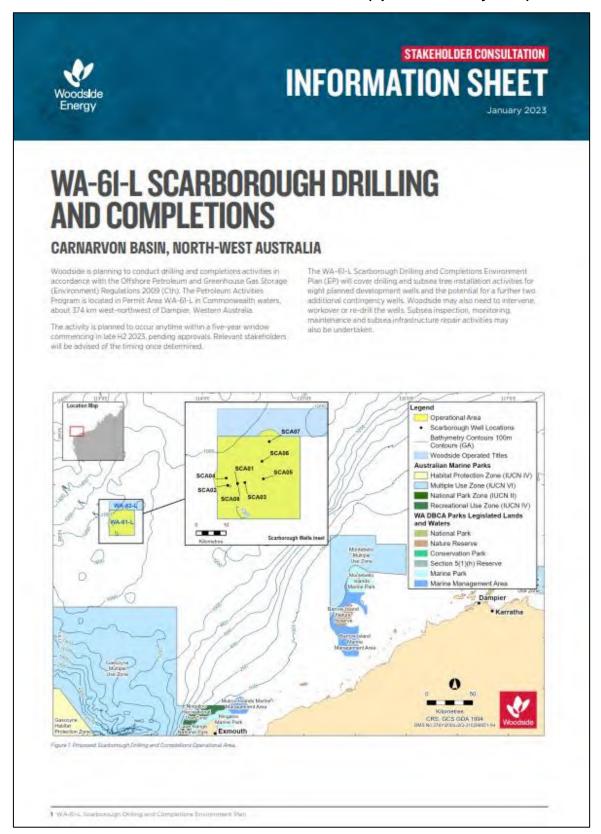
- · In development
- Proposal for visual and gravimetric surveys, plus installation of flowlines, umbilicals, risers, mooring legs, concrete pads and ancillary infrastructure, required for the flow and control of hydrocarbons to the Scarborough FPU, ~244 km north-northwest of Exmouth

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1.25 Woodside Consultation Information Sheet – (updated January 2023)



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Table 2 - Proposed w

The state of the s				
Activity	Water Depth (Approx. m LAT)	Latitude	Longitude	Permit Area
New development wells				
SCA01 well	910	19" 53" 30,499" 5	113° 08' 43.568" E	WA-61-L
SCA02 well	912	19*53' 48.471" S	113° 06' 55.261" E	WA-61-L
SCA03 well	912	19° 53' 18.551" S	113° 10' 03 300° E	WA-61-L
SCA04 well	918	19° 52" 30.359" S	113° 06' 41.412" E	WA-61-L
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SCA06 well	902	19" 49" 27,763" 5	113° 13' DB.300" E	WA-61-L
SCA07 well	907	19* 45' 52.900' S	113° 14' 27.449" E	WA-61-L
SCA08 well	909	19° 53' 27.254" S	113° 08' 43,647"E	WA-6I-L
Contingent wells		Within p	ermit area WA-61-L	

Environment That May Be Affected (EMBA)

The environment that may be affected (EMBA) is the largest spatial extent where the Scarborough Drilling and Completions Activity could potentially have an environmental consequence (direct or indirect impact). The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this EP is determined by a highly unlikely release of marine diesel to the environment as a result of vessel collision. This is depicted in Figure 2.

The EMBA does not represent the extent of predicted impact of the highly unlikely marine diesel release. Rather, the EMBA represents the merged area of many possible paths a highly unlikely hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release.

This means in the highly unlikely event a hydrocarbon release does occur, the entire EMBA will not be affected and the specific and minimal part of the EMBA that is affected will only be known at the time of the release.

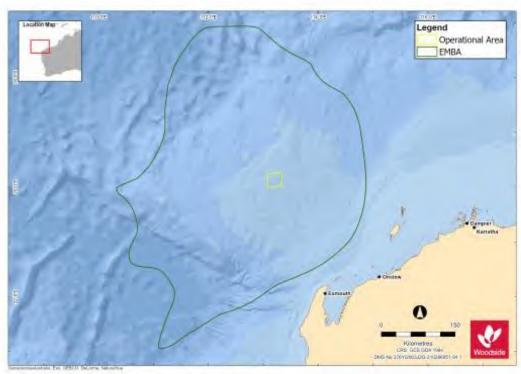


Figure 2. Environment that May Be Affected by the Scarborough Draining and Completions Activity.

3 WW-61-L Scarsorough Delling and Completions Environment Plan

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Mitigation and management measures Woodside has undertaken an assessment to identify potential impacts and risks to the environment arising from the Scarborough Drilling and Completions Activity A number of mitigation and management measures for the Scarborough Dnilling and Completions Activity are outlined in Table 3. Table 3 - Summary of key risks and/or impacts and preliminary management measures for the Scarborough **Drilling and Completions Activity** Preliminary Mitigation and/or Management Measures¹ Description of Source of Potential Description of Potential Impact/Risk Impact/Risk Planned External lighting on Project vessels and . Light emissions can affect fauna (such as . Lighting limited to the minimum required the Mobile Offshore manne turtles and birds) in two main ways: Drilling Unit (MODU) Will use external potential to preate a constant level of for navigational and safety requirements, except for emergency events. the MODU and project · Flaring restricted to a duration necessary lighting to navigate light at night that can override natural levels and cycles. to achieve the well objectives, eliminating unnecessary flared volumes and corresponding light emissions. and conduct safe Vessel lighting will also be used to a stifficial light may override natural course. Vessel lighting will also be used to artificial light may override natural cues. also be used to communicate the leading to discrientation. MODU and vessel MODU and vessel Given the distance from short >215 km from the North Wes >215 km from the North West Cape). marine users (i.e. navigation/warning low sensitivity of receptors offshore (i.e., no presence of nesting turtles and low likelihood of hatching turtles lights). in the offshore environment), and the negligible contribution of light emissions to the environment from the activity, light emissions to marine turtles are unlikely · Light may also. be emitted from flaring during well unloading. to result in more than slight, localised behavioural disturbance to isolated tran individuals, with no lasting effect to the species. · As the Operational Area is offshore and away from islands or other emergent features, presence of seabirds or shorebirds is considered likely to be of a transient nature only. Behavioural disturbance to birds from light is expected to be localised to within the vicinity of the MODU and vessels, and will not seriously disrupt the lifecycle of an ecologically significant proportion of migratory birds. Emissions from project vessels and MODU could result in temporary, localised reductions in air quality in the immediate Atmospheric Atmospheric Comply with regulatory requirements emissions and greenhouse gas (GHG) emissions and GHG emissions will be for marine air pollution and GHG emissions reporting. Vessel speed emissions generated by the vicinity. will be managed to reduce fuel consumption where practicable. . Given the offshore location of the activity. and the low volumes of atmospheric emissions which will be generated. Wells drilled in compliance with the accepted Well Operations combustion engines and incineration brodversity, ecological integrity, social amenities and human health will not be impacted and potential impact to air quality Management Plan (WOMP), including implementation of barriers to prevent a loss of well integrity. Well flowback if carried but, will is considered negligible. Flaring restricted to a duration result in flaring and/or venting of hydrocarbons from vessel and MODU fuel usage for the activity, the potential GHG impact and risk necessary to achieve the well objectives, eliminating unnecessary flared volumes and corresponding GHG hydrocarbons Contingent venting from this activity is considered negligible. emissions. of gas during drille in the unplanned Assess opportunities to eliminate well flowback flaring to MODU to reduce event of a well-kick GHG emissions will also result in release of some GHG Contractors engaged on energy/ GHG emissions efficiencies and emissions. opportunities identified are plemented where leasible and as low as reasonably practicable (ALARP): Track and review GHG emissions during the activity to identify further opportunities to improve efficiencies if possible. 4 WA-ID-L Scarborougo Disting and Comparisons Environment Plan

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Preliminary Mitigation and/or Management Measures Description of Potential Impact/Risk Potential Impact/ Description of Physical presence – disturbance to Benthic Habitat from MODU Seabed disturbar may result from: Habitat modification as a result of seabed disturbance (excluding drill cuttings and fluids) could occur within a radius of up to 10 Mooring systems (chains/wires and anchors) will be removed. Drilling operations (from nurs) could occur within a radius of up to 10 in from each well (10 wells in total). Near this area, benthic communities may be reduced or altered, leading to a highly localised impact to epifauna and infauna benthic communities present. Infrastructore will be placed on the seabed within the predefined design footprint using positioning technology anchoring, drilling operations, subsea installation and ROV installation of the blowout preventer (BOP) and conductor), mooring installation (if a moored MODU is operations to limit seabed disturbance. Project specific Mooring Design Analysis (for anchored MODU) to reduce the likelihood of anchor drag leading to seabed disturbance. communities present. The Exmouth Plateau Key Ecological Feature (KEF) overlaps the Operational Area and seabed disturbance may lead to a highly seabled change in habitat and water quality, which will be short-term. These potential short-term impacts are unlikely t impact on the ecological value of the KEF. used instead of a DP MODU) and Remotely Operated Vehicle (ROV) operations and other activities in proximity to the seabed such as manne growth removal from infrastructure. The main impact associated with ocean disposal of sewage and other organic wastes (i.e. putrescible waste) is eutrophication. Eutrophication occurs when the addition of nutrients, such as nitrates and phosphates, causes adverse changes to the ecosystem including short-term, localised impacts to water quality. Routine and non-routine discharges - MODU and project Sewage, greywater and macerated food waste will be discharged from Marine discharges will be managed according to regulatory requirements. Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints and approved through . Blige water, deck the Woodside chemical assessment water quanty drainage and brine and cooling water may also be discharged. water quanty No significant impacts are expected to water quality from planned discharges because of the minor quantities involved, the expected water quality. localised mining zone, and the high level of dilution into the open water manne environment of the Operational Area. · Similarly, although some marine fauna may transit the Operational Area, potential for impacts remains low due to the localised nature of discharges and repid dilution. 6 WA-61-L Scarborough Drilling and Completions Environment Plan

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Preliminary Mitigation and/or Description of Description of Potential Impact/Risk Potential Impact/ Drill cuttings and retained drilling fluid discharges are expected to increase discharged into the marine environ routine discharges Mud (WBM) and/or turbidity and total suspended segiment - drill cuttings and reduced to ALARP using the Woodside (TSS) levels above ambient concentrations above the seabed (for top-hole well sections) or in the upper surface layers (for drilling fluid treated Non-Wate chemical assessment process NWBM base oils selected based on and drill cuttings to the seabed and bottom-hole well sections). This reduction in water quality will be temporary (kinited to the operational discharges during drilling) and subject to rapid dispersion and dilution NWBMs only used where written will occur justification process has been followed and bulk NWBM will be retained for Discharges of other fluids may occur as required such as • wash water from by prevailing seabed currents. disposal onshore or maintained on rig for It is expected that impacts to plankto species will be highly localised and return mud pits, vessel tank wash fluids and well clean-out fluids. to previous conditions within a relatively will be treated to meet specified short period of time due to the open nature of the manne environment and associated environmental conditions, the content and discharge limits prior to discharge or cantained. If discharge specification not met the fluid will be returned to shore. Drill cuttings returned to the MODU will dispersive nature of drilling muds within the manne environment and the high population replenishment of these organisms. be discharged below the water line to facilitate dispersion. Impacts to benthic communities will be largely limited to an area surrounding the well locations. The low sensitivity of the benthic communities/habitats within and in the vicinity of the Operational Area. combined with the low toxicity of WBMs and residual NWBMs, no bulk discharges of NWBM and the highly localised nature and scale of predicted physical impacts to seabed biota, mean predicted impact is considered to be slight. Potential impacts to the Exmouth Plateau KEF, which overlaps the Operational Area, relate to ecological impacts to the seabed habitat and benthic communities. The extremely small portion of the overall KEF area predicted to be impacted in combination with the predicted recovery of the affected benthic communities, mean that predicted impact is considered to be Routine and non-· Routine discharge . Cement operations during drilling involve . Chemicals intended or likely to be routine discharges - cement, cementing routine and non-routine discharges that can result in turbidity in the water column. Reduction in water quality will be temporary discharged into the marine environmenduced to ALARP using Woodside's of cement and cementing fluids to the seabed and fluids, subsea well chemical assessment process. (Imited to the cement operational discharges Fluids contaminated with hydrocarbons fluids, produced water manne environment. during drifting) and subject to rapid dispersion and dilution by prevailing currents. and unused bulk Poutine discharge will be treated to meet specified of subsea well fluids, completion fluids, discharge limits prior to discharge or contained. If discharge specification not met during well unloading and . The highly localised physical footprint of produced water and cement on the seabed at the well site is not expected to affect the overall diversity or ecosystem function of the benthic workover fluids: workover fluids: communities of the area. bulk product. Silven the arriel volumes associated with subset control fluids discharge and limited exposure times due to rapid dilution, potential environment. No bulk cernert, bentonite or bante discharged without a documented environmental assessment. completion activities, if produced water is not flared, it will be processed through the well test water filtration treatment package prior to discharge to the · Non-routing and of low-foxicity. These fluids may include subsea control fluid, completions fluids and well annular fluids. Changes to water quality are expected to be localised and temporary as discharges would be discrete and short in 7 WA-61-L Scarborough Onling and Completions Environment Plan

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Potential impact/ Risk	Description of Source of Potential Impact/Risk	Description of Potential Impact/Risk	Preliminary Mitigation and/or Management Measures
Unplanned			
Unplanned hydrocarbon release – vessel collision	Project vessels will use marine diesel fuel, meaning a vessel collision	 In the highly unlikely event of a vessel collision causing a release of hydrocarbons, impacts to water quality and marine ecosystems could occur. 	Preventing Vessel Collision: Camply with regulatory requirements for the prevention of vessel collisions and
	involving a project vessel or third-party during the activity may result in the release of manne diesel. For a collision to result in the worst-case scenario diesel release, several factors must occur as follows: Identified causes of vessel interaction must result in a collision. The collision has enough force to penetrate the vessel hull and in the exact location of the fuel tank. The fuel tank must be full or at least of volume which is higher than the point of penetration.	Madeller of a surface solution of shoring	safety and emergency arrangements. Consult with relevant persons so that other marine users are informed and aware, reducing the likelihood of a collision. Establish temporary exclusion zones around vessels which are communicated to marine users to reduce the likelihood of collision. Develop a management plan for simultaneous operations to manage rig interactions with other facilities and vessels. Spill Response Arrangements: Develop a project specific Oil Pollution Emergency Presparation document (OPEP) including first strike response pilat. Arrangements supporting the OPEP will be tested to ensure the OPEP can be implemented as planned. Emergency response activities would be implemented in line with the OPEP.
Unplanned hydrocarbon release - loss of well control	Accidental loss of hydrocarbons to the marine environment due to loss of well control may occur caused by failure of well barners.	Given hydrocarbons of the Scarbordoph reservoir contain no measurable liquid fraction (predominantly natural quas), there is expected to be no or negligible liquid component in the event of a loss of containment. This means there is no credible hydrocarbon spill scenario in the event of a well blowout. A loss of well control may temporarily decrease the water quality in the immediate vicinity of the release.	Wells drilled in compliance with the accepted Wells Operations Management Plan (WOMP) including implementation of berriers to prevent loss of well control. Checks completed during well operations to establish a minimum acceptable standard of well integrity. Implement requirements for permanent well abandoment to reduce likelihood of a spill occurring from a suspended well. An approved Source Control Emergency Response Plan will be prepared prior to drilling each well including fessibility and specific considerations for relief well. Subsea BOP specification, installation and testing compliant with internal Woodside Standards and international requirements. Project-specific mooning design analysis to enable adequate MODU station holding capacity to prevent loss of station keeping and reduce the likelihood of a blowout.

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Preliminary Mitigation and/or Management Measures¹ Description of Potential Impact/Risk otential impact/ Description of Source of Potential Impact/Risk Unplanned Marine diesel surface release expected to Preventing unplanned hydrocarbon hydrocarbon release be confined to within several kilometers of of hydrocarbons release due to bunkering: bunkering to the marine the release site, and well within the EMBA. Comply with regulatory require identified for the vessel collision scenario. for the prevention of marine pollution. planned bunkering, This unplanned marine diesel release may Liquid chemical and fuel storage areas refueling may occur have the potential to result in change in water quality and fauna behaviour. caused by partial or total failure of a bunded or secondarily contained when they are not being handled or Receptors considered in the risk assessment bulk transfer hose temporarily moved. for this unplanned event included marine mammals, marine reptiles, fish, sharks an or fittings due to operational stress Appropriate bunkering equipment kept and maintained rays. Taking into account receptor sensitivity. or other integrity the receptors were rated as having a potential consequence level of minor or less (slight or negligible). Compliance with Contractor issues procedures for the management of bunkering/fielicopter operations to reduce the likelihood and potential severity of a spill. Spill Response Arrangements: Maintain and locate spill kits in close proximity to hydrocarbon storage and deck areas for use to contain and recover deck spills. Arrangements supporting the OPEP will be tested to ensure the OPEP can be implemented as planned. Emergency response activities be implemented in line with the OPEP. Comply with regulatory requirements Unplanned discharge . Accidental discharge . Unplanned discharges of non-process. Uniplanned discharges of non-process chemicals and hydrocarbors may decrease the water quality in the immediate vicinity of the release. Only small yollumes (+50 L) are afficiated, resulting in very short-term impacts to water quality and limited to the of hydrocarbons/ chemicals from MODL/project chemicals and for the prevention of marine pollution. hydrocarbons Liquid chemical and fuel storage areas are bunded or secondarily contained when they are not being handled/ moved temporarily. vessels deck equipment and immediate release location. from subsea ROV Irom subsea ROV hydraulic leaks may occur. - Unplenned discharges of drilling fluids have a worst-case credible spill scenerio of up to 8 m². Unplenned discharge of drilling fluids cement would typically be <100 litres. These discharges would be to the sea surface and would rapidly dilute through mixing by Spill kits positioned in high-risk locations around the vessel (near potential spill points such as transfer Accidental discharge stations). Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical ail) and cement to surface currents and wave action. Given the occasional nature of unplanned chemical discharge, the small volumes, and the offshore location of the Operational Area; constraints and approved through slip joint packers. process. the change to water quality resulting from unplanned discharge of chemicals will not bulk transfer hose/ Liquid chemical and fuel storage areas are bunded or secondarily contain when they are not being handled/ disconnect system be substantial. or from routine If activation of the emergency disconnect sequence is required, a release of base oil could occur. This process is in place to moved temporarily MODU operations. Onling fluid transfers are performed in accordance with the applicable prevent damage to the well or MODU from contractor procedures, and associated identified threats, such as loss of MODU station keeping, well blowout or potential collision by a third-party vessel, which could equipment is functional in preventing the unacceptable use or discharge of NWBM/base oil. lead to further hydrocarbon release or installation vessels have self-containing infrastructure damage. hydraulic oil drip tray management As a result of a change in water quality, system. further impacts to receptors may occur including injury or mortality to marine fauna resulting from exposure to toxins in the released chemicals/hydrocarbons. Potential impacts would be highly localised and temporary meaning the predicted impact is considered to be slight. 9 WA-81-L Scarpprough Drilling and Campletium Environment Plan

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Potential Impact/ Description of Description of Potential Impact/Risk Preliminary Mitigation and/or Source of Potential Impact/Risk **Management Measures** Unplanned discharge The potential impacts of hazardous or non-hazardous solid wastes and equipment Comply with regulatory requirements for the prevention of marine pollution of solid hazardous, non-hazardous solid of hazardous or accidentally discharged to the marine and handling of hazardous wastes. waste/equipment non-hazardous solid environment include contamination of the Implement waste management environment as well as secondary impacts reliabing to potential contact of marine fauna with wastes. The temporary or permanent wastes/equipment procedures which provide for safe handling and transportation, environment may segregation and storage and occur if dropped or loss of waste materials/equipment into the appropriate classification of waste matine environment is not likely to have a significant environmental impact, based on Solid waste/equipment drooped to the the location of the Operational Area, the types, size and frequency of wastes that could occur, and species present. marine environment will be recovered where safe and practicable to do so. Where retrieval is not practicable and/ or safe, material items (property) lost to the marine environment will underg an impact assessment and will be added to the inventory for the Little. MODU/installation vessel inductions Unplanned seabed Unplanned · Linplanned seabed disturbance may result disturbance disturbance to in localised changes to water and sediment quality or a localised temporary impact to include control measures for dropped seabed may occur in the case of failed benthic communities. Drapped objects to be recovered and MODU mooring · Potential impacts to KEFs which intersect relocated where safe and practicable leading to anchor the Operational Area of the activity are limited to the footprint of a dropped object or dragged anchor, resulting in potential to do sa. drag. Dropped objects or safe, material items (property) lost to the marine environment will undergo an impact assessment and will be added to the inventory for the title. may also result in unplanned disturbance of highly localised and temporary change in benthic habitat. Specifications and requirements for mooring systems enforced which require the system to have sufficient capability that a failure of single components will not cause progressive failure of the remaining anchoring arrangement Tracking of the MODU will be possible when the MODU is unmenned to ensure the MODU location is tracked at all times: Project-specific Mooring Design Analysis and mooring system testing undertaken to reduce the likelihood of mooring failure or anchor drag. Accidental MODU/vessels. . It is not credible for IMS to be introduced. Ballast water and biofouling will be introduction of invasive marine transiting to the Operational Area and establish on the seabed or subsea structures in the Operational Area as these managed according to regulatory requirements, including the Australian Ballast Water Management species (IMS) may be subject. deep waters are not conducive to the to marine fouling settlement and establishment of IMS. Requirements, and the Australian whereby organisms attach to the MODU/ Biofouling Management Requirements. There is potential for the transfer of IMS as applicable. between vessels albeit remote likelihood westel hull given the limited interaction between Woodside's IMS risk assessment process will be applied to project vessels and immersible equipment . IMS could be present vessels in the Operational Area. as biofouling on the MODU/vessel hull entering the Operational Area. ar an immersible equipment (survey equipment, ROV, etc.) and could be translocated to the Operational Area. · Organisms can also be drawn into ballast tanks during anhoarding of 10 WA-B-L Scarborough Drilling and Completions Entremment Pile

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Preliminary Mitigation and/or Management Measures¹ Description of Source of Potential Impact/Risk Description of Potential Impact/Risk Unplanned interaction Vessel disturbance presents a potent threat to marine mammal and fish, sharks and rays. for interactions with marine fauna to reduce the likelihood of a collision have the potential to result in collisions between MODU/ occurring. project vessel (hull and propellers) and The risk of vessel collision with manne fauna is present year-round but is elevated seasonally for species during migration periods. Given the short duration of activities within the Operational Area, and marine fauna. The factors the slow speeds at which project vessels operate during installation (if not stationary), collisions are considered highly unlikely. contributing to the frequency and severity of impacts due to collisions vary greatly due to vessel type, vessel operation (specific activity, speed), physical environment (e.g. water depth) and the type of animal potentially present and their behaviours. Feedback If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information, please contact Please note that your feedback and our response will be included in our Erroronment Plan for the proposed activity, which will be submitted to Woodside before 17 February 2023 via. NOPSEMA for acceptance in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth). Toll free: 1800 442 977 Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the You can subscribe on our website to receive Consultation Information vironment Plan in order for this information to remain confidential to Sheets for proposed activities: www.woodside.com/sustainability/ NOPSEMA. consultation-activities. National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) as required under legislation. Woodside will communicate any material changes to the proposed activity to affected stakeholders as they arise.

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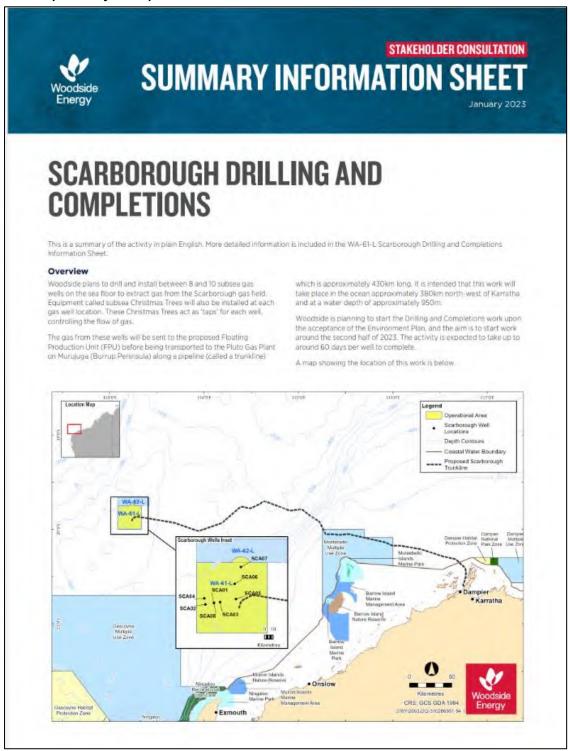
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1.26 Simplified Overview Consultation Information Sheet Drilling and Completions (January 2023)



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Proposed activity

Table 1 - Activity summary

Activity	Details
Earliest commencement date	H2 2023 pending approvals, vessel availability and weather constraints
Estimated duration	50-60 days per well
Operational Area	4,000 m for moored mobile offshore drilling unit (MODU), 500 m for dynamically positioned mobile offshore drilling unit (DPMODU)
Water depth in Operational Area	Approximately 900 m - 955 m
MODU	OPMODU with contingency for moored MODU, depending on availability and suitability for the development well locations and to allow options for relief well disling.
	 Installation vessels for installing the subsea infrastructure.
Project Vessels	 Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities.
	 Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels.
Distance from Operational Area to nearest port/marina	244 km north-northwest of Exmouth, 374 km west-northwest of Dampier
	83 km north of the Gascoyne Marine Park (Cwith)
Distance from Operational Area to nearest marine park	 206 km north-west of Montebello Manine Park (Cwith)
	208 km north-northwest of Ningaloo Marine Park (Cwith)

Drilling and completions for the development wells is expected to take approximately 50-60 days per well to complete. Subsea inspection, monitoring, maintenance and repair activities may be conducted intermettently and over short durations in the immediate vicinity of installed subsea infrastructure. Activities will be conducted 24 hours per day, seven days per week. Timing and duration of these activities is subject to change due to project schedule requirements, drill rig and vesser availability, weather and unforeseen circumstances. Technical details are outlined in Table 2.

Project vessels

Woodside is currently considering rig options for drilling of the wells, which include a moored semi-submersible MODU, a dynamically positioned drill ship or a DPMODU. Dynamic positioning is a computer-controlled system to automatically maintain a vessel or rig's position and heading by using its own propellers and thrusters. Typically, two or three vessels will support drilling activities, with at least one vessel in the vicinity to complete standby duties, if required. Supply vessels will visit the selected MODU/drill ship at regular intervals. A subsea installation vessel will be used for the installation of the subsea infrastructure, with support from additional dedicated vessels. Support vessels are also required for inspection, monitoring, maintenance and repair activities.

Communications with mariners

A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The following Operational Areas will also apply:

- DPMODL/drillship 500 m radius from each well centre
- . Moored MODU 4,000 m radius from each well centre.
- Installation vessel 1,500 m radius around subsea locations

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearty.

Proposed locations

Approximate development well locations for the eight planned wells are provided in Table 2. In the event the two additional contingency wells are installed, they will be also be in WA-61-L, with all activities undertaken within the relevant Operational Area.

Implications for stakeholders

Woodside will consult relevant stakeholders whose interests, functions, and activities may be affected by the proposed activities. We will also keep informed other stakeholders who have an identified interest in the planned activities. Woodside has undertaken an assessment to identify potential risks to the marine environment and relevant stakeholders, considering timing, duration, location and potential impacts anising from the drilling, construction and installation activities. This EP approval falls under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP) and will be conducted in line with relevant requirements of the OPP. A number of mitigation and management measures will be implemented and are summarised in Table 3.

About Scarborough

The Scarborough gas resource is located offshore, approximately 375 km west-northwest of the Burrup Peninsula and is part of the Greater Scarborough gas fields which are estimated to hold 13.0 Tcf (2C, 100%) of dry gas.

Woodside, as operator of the Scarborough Joint Venture, is proposing to develop the Scarborough gas resource through new affshore facilities connected by an approximately 430 km pipeline to a proposed expansion of the existing Pluto LNG onshore facility (Pluto Train 2).

For more information about the proposed Scarborough development, visit woodside.com.

2 WA-61-L Spinborough Drilling and Completions Environment Plan

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Work Method

To undertake the Drilling and Completions activities, Woodside will conduct inspections and monitor the sea floor, drill the holes, and build the wells using large vessels and support boats. Once the drilling has taken place, completion activities will be carried out which will include installing the Christmas Trees. Woodside will conduct re-drilling and maintenance of the drill holes and wells as necessary.

Environmental Impacts and Management

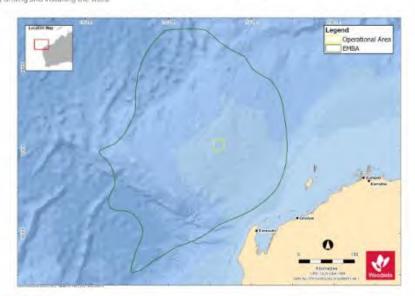
This work program includes Planned Activities but may also result in Unplanned Activities. Both Planned and Unplanned Activities may impact the environment. Woodside manages the work program to reduce impacts and risks to as low as practical.

Planned Activities are activities that Woodside knows will happen as part of this work program. For example, Planned Activities include other marine users being temporarily stopped from accessing the work area, and the marine vessels used for the work may generate underwater noise, light emissions, atmospheric emissions, and routine discharges (such as sewage, waste, and deck drainage), and authorised waste from the drill rig and support boats. This work may also disturb the seabed by drilling and installing the wells.

Unplanned Activities are not planned as part of the work program, but may be the result of an accident, incident, or emergency situation. It is highly unlikely that there will be an Unplanned Activities might include gas leaking from the wells, a spill of fuel or oil from a vessel collision, a spill on the deck of a vessel (such as during refuelling), unplanned seabed disturbance, accidental collision with marine animals, waste entering the environment and accidental introduction of invasive species from outside the region.

A table showing all planned and unplanned activities, potential impacts, and management measures for each is included in the attached information Sheet, Table 3.

The total area over which unplanned events could have environmental impacts is shown in the map below. This is referred to as the environment that may be affected (EMBA). The location in which the Drilling and Completions activities will occur, known as the Operational Area, is also shown on the map below. In the highly unlikely event such as a fuel spill from a vessel collision, the entire EMBA will not be affected. The part of the EMBA that is affected will only be known at the time of the event.



Providing feedback

If you have an interest in the area of the "environment that may be affected" (EMBA) by this work program and would like more information or have any concerns, you can tell Woodside by calling 1800 442 977 or sending an email to feedback@woodside.com.au. Please contact Woodside before 20th February 2023 so your questions or concerns can be considered during the environmental approval process.

If you would prefer to speak to the government directly, they can be contacted on +61 (0)8 6188 8700 or send an email to communications@nopsema.gov.au.

Conclusion

Woodside produces energy that Western Australia, Australia, and the world needs. Woodside has made this energy from its oil and gas projects in Western Australia for over 35 years safely, reliably, and without any major environmental incident. Woodside is very proud of this legacy.

There are always potential risks with projects like this. Woodside has carefully planned this work program so that the risk of environmental impact is reduced to as low as reasonably practical and of an acceptable level. There are also strict government laws in place to protect the environment. Woodside complies with these laws and has systems in place to keep following these laws and rules for each project it undertakes.

If you would like information about Woodside's work to study and care for the environment, you can find it at https://www.woodside.com/sustainability/environment.

Further Information

You can find the details Consultation Information Sheet for proposed activity on our website: https://www.woodside.com/sustainability/consultation-activities.

www.woodside.com



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1.27 Simplified Overview Consultation Information Sheet Scarborough (January 2023)



SCARBOROUGH PROJECT

Introduction

This is a summary of some of the work Woodside will be doing for its Scarborough Project. Most of this work will take place in the ocean approximately 375km northwest of Karratha.

Woodside

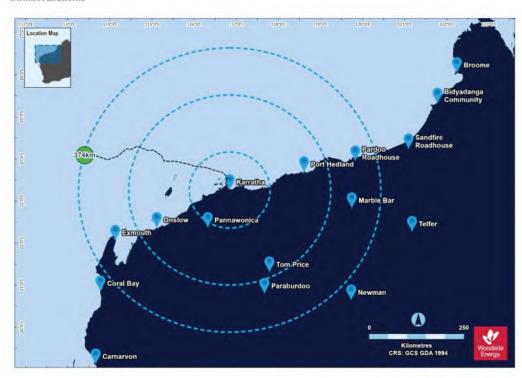
Woodside has been operating safely for over 35 years, delivering gas and oil to customers in Australia and around the world safely, reliably, and without any major environmental incident. Woodside is very proud of this leady.

You can find more information about Woodside on our website: www.woodside.com.

Scarborough Project

Scarborough is a gas field under the sea floor about 375 km northwest of Karratha. Woodside plans to bring this gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline (called a trunkline) that is approximately 430km long, to Woodside's Pluto gas plant.

The map below shows where the Scarborough project, including the trunkline, is located.



You can find more information about the Scarborough project on Woodside's website

https://www.woodside.com/what-we-do/growth-projects/scarborough

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Work for the Scarborough Project

This is an overview of some of the programs which make up the Scarborough project. Woodside is planning to commence work on these programs once the environmental plans have been approved. There will be further work programs that will form part of the Scarborough project.

The current work programs are:

- Laying the pipeline from the Scarborough gas field to the shore at Murujuga (Burrup Peninsula). The pipeline (called a trunkline) is approximately 430 kilometres long. This is called Seabed Intervention and Trunkline Installation.
- A survey of what is underneath the seafloor. These are called Seismic Surveys.
- Drilling and installing between 8 and 10 subsea gas wells on the sea floor to extract gas from the Scarborough gas field. This is called Drilling and Completions.
- Installing pipes and other equipment on the sea floor so gas can be carried to a proposed Floating Production Unit (FPU), This is called Subsea Infrastructure Installation.

Information sheets for these work programs are available on our website:

https://www.woodside.com/sustainability/consultation-activities.

www.woodside.com



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1.28 Email sent to Ngarluma Aboriginal Corporation (NAC) (20 January 2023)

Good morning

In follow up to our phone conversation, please find attached, and following, information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on our website, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that Ngarluma Aboriginal Corporation (NAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If you would like to speak with us, please let us know by **20 February 2023**. Please also let us know how you would like us to engage with you as soon as possible.

If there is any support or specific information that NAC requires to prepare for the meeting, please let me know. In the meantime, I have attached for NAC's review:

- 1. A Summary Overview of the Scarborough project; and
- 2. Respective Summary Information sheets

NAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to NAC members as required. Woodside would be pleased to speak with NAC members in addition to the NAC Board / office holders.

We look forward to hearing from you.

Kind regards



First Nations Relations, Corporate Australian Operations

1.29 Email sent to Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) (20 January 2023)

Good afternoon

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Thank you again for your time to speak with Woodside staff over the last couple of weeks and for making arrangements for Woodside and Nganhurra Thanardi Garrbu Aboriginal Corporation RNTBC (NTGAC) to meet on 16 February. As discussed, please see attached information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on our website, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that the NTGAC and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If there is any support or specific information that NTGAC requires to prepare for a meeting, please let me know. We are also happy to discuss appropriate mechanisms for consultation. In the meantime, I have attached for NTGAC's review:

- 2. A Summary Overview of the Scarborough project; and
- 3. Respective Summary Information sheets

NTGAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to NTGAC members as required. Woodside would be pleased to speak with NTGAC members in addition to the NTGAC Board / office holders.

We look forward to hearing from you.



1.30 Email sent to Murujuga Aboriginal Corporation (MAC) (20 January 2023)

Good morning

In follow up to your recent conversation with please find attached, and following, information in relation to Woodside's proposed Scarborough gas project.

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The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on our website, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that Murujuga Aboriginal Corporation (MAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

I understand that will be attending the MAC board meeting on **24 January 2023** to discus this and the previous information we have shared in relation to the Nganhurra Riser Turret Mooring (RTM).

In preparation for the meeting, I have attached for MAC's review:

- 3. A Summary Overview of the Scarborough project; and
- 4. Respective Summary Information sheets

MAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to MAC members as required. Woodside would be pleased to speak with MAC members in addition to the MAC Board / office holders.

We look forward to hearing from you.

Kind regards



First Nations Relations, Corporate Australian Operations

1.30.1 Email Sent to Murujuga Aboriginal Corporation (MAC) (15 September 2023)

Hello

The third email this week from me to you, apologies for the volume of emails but this should be it for this week.

Further to my correspondence earlier in the week about a number of Woodside's decommissioning and project activities, I am writing regarding three of Woodside's Scarborough activities that have been the subject of our consultations to date, particularly in relation to potential impacts to MAC's interests, functions or activities in the environment that may be affected (EMBA) by these activities.

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These activities are covered under the following environment plans (EPs):

Scarborough Project Activities

- 1. Scarborough Seabed Intervention and Trunkline Installation
- 2. Scarborough Drilling and Completions
- 3. Scarborough Subsea Infrastructure Installation

I am writing to notify you of Woodside's planned commencement date of these activities, and to seek your confirmation in relation to the following matters on or before the dates set out in the tables below:

- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by these activities that have not yet been afforded the opportunity to provide information that may inform the management of the activities; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

Environment Plan Open for Feedback	_	Please Provide Feedback By:
Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	28 Sep 2023
Scarborough Drilling and Completions	19 Oct 2023	28 Sep 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	28 Sep 2023

I have attached the information relevant to each of these activities, and ask that you please distribute it to members or individuals who may be interested.

As with all of our activities, consultation remains ongoing. This means that we will take any feedback regarding the activities, or any other relevant information you may wish to provide, at any time during the activities and will assess this information using the mechanisms described in the EPs.

As you are aware, NOPSEMA has published a number of documents on consultation (please see Document Hub | NOPSEMA). For your convenience we have provided links to the following recent publications below:

- Brochure: Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- Guideline: Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- **Policy:** <u>Draft policy for managing gender-restricted information PL2098.pdf</u> (nopsema.gov.au).

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

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As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support their participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

We look forward to ongoing consultation with MAC and to progressing the various matters that have been the subject of our meetings and correspondence to date. As always, please let us know how we can support MAC to progress these matters and to participate in ongoing consultation with Woodside.

Kind Regards



1.31 Email sent to Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) (27 January 2023)



I hope your week is travelling nicely.

I tried to call this morning, just to reach out to see if you require any further information at this point, whether you need anything from Woodside to assist with NTGAC's consideration, or whether you need any assistance to prepare for our meeting on 16/2.

Please feel free to call / email if you need any assistance. I would also be more than happy to meet up if you would like.

Have a great weekend.



1.32 Email sent to Wirrawandi Aboriginal Corporation (WAC) (20 January 2023)

Good morning

In follow up to previous email correspondence from my colleague please find attached, and following, information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on <u>our website</u>, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

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Woodside is seeking to understand the nature of the interests that Wirrawandi Aboriginal Corporation (Wirrawandi) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

I understand you would like to speak with us, on this and in relation to the Nganhurra Riser Turret Mooring (RTM) information that has already shared. I will reach out to you by phone, on Monday 23 January to discuss where you, and your board members would like to meet and to discuss the soonest possible date/time to do so.

If there is any support or specific information that Wirrawandi requires to prepare for the meeting, please let me know. In the meantime, I have attached for Wirrawandi's review:

- 4. A Summary Overview of the Scarborough project; and
- 5. Respective Summary Information sheets

WAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to Wirrawandi members as required. Woodside would be pleased to speak with Wirrawandi members in addition to the WAC Board / office holders.

I look forward to connecting with you on Monday, to arrange a meeting and to discuss the logistics of such.

Kind regards



First Nations Relations, Corporate Australian Operations

1.33 Email sent to Yinggarda Aboriginal Corporation (YAC) via Yamatji Marlpa Aboriginal Corporation (YMAC) (20 January 2023)

Good afternoon



Further to recent communications, please find attached information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnaryon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

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We have a number of detailed Consultation Information Sheets, available on <u>our website</u>, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that Yinggarda Aboriginal Corporation (YAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If you would like to speak with us, please let us know by **20 February 2023**. Please also let us know how you would like us to engage with you as soon as possible.

If there is any support or specific information that YAC requires to prepare for a meeting, please let me know. In the meantime, I have attached for YAC's review:

- 1. A Summary Overview of the Scarborough project; and
- 2. Respective Summary Information sheets

YAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to YAC members as required. Woodside would be pleased to speak with YAC members in addition to the YAC Board / office holders.

We look forward to hearing from you.

Kind regards

Manager First Nations Relations | Corporate Affairs

1.34 Email sent to Yindjibarndi Ngurra Aboriginal Corporation (20 January 2023)

Good morning

In follow up to a telephone conversation with my colleague on 6 January, and her subsequent email correspondence regarding the Nganhurra Riser Turret Mooring (RTM), North West Cape on 18 January, please find attached, and following, information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

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We have a number of detailed Consultation Information Sheets, available on <u>our website</u>, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that Yindjibarndi Aboriginal Corporation (YAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If you would like to speak with us, please let us know by **20 February 2023**. Please also let us know how you would like us to engage with you as soon as possible.

If there is any support or specific information that YAC requires to prepare for a meeting, please let me know. In the meantime, I have attached for YAC's review:

- 1. A Summary Overview of the Scarborough project; and
- 2. Respective Summary Information sheets

YAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to YAC members as required. Woodside would be pleased to speak with YAC members in addition to the YAC Board / office holders.

We look forward to hearing from you.

Kind regards

1.35 Email sent to Robe River Kuruma Aboriginal Corporation (RRKAC) (20 January 2023)

Good afternoon



Further to our recent communications, I attach information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on <u>our website</u>, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

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Woodside is seeking to understand the nature of the interests that Robe River Kuruma Aboriginal Corporation (RRKAC) and its members may have in the 'environment that may be affected' (EMBA) by this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If you would like to speak with us, please let us know by 20 February 2023. Please also let us know how you would like us to engage with you as soon as possible.

If there is any support or specific information that RRKAC requires to prepare for a meeting, please let me know. In the meantime. I have attached for RRKAC's review:

- 5. A Summary Overview of the Scarborough project; and
- 6. Respective Summary Information sheets

RRKAC can also provide feedback directly to me on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

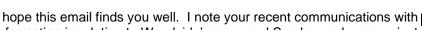
Please feel free to forward this email and, the attached documents to RRKAC members as required. Woodside would be pleased to speak with RRKAC members in addition to the RRKAC Board / office holders.

We look forward to hearing from you.

Kind regards

1.36 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (20 January 2023)

Good afternoon



I hope this email finds you well. I note your recent communications with and attach information in relation to Woodside's proposed Scarborough gas project.

The Scarborough gas field is located in the Carnarvon Basin, approximately 375 km off the coast of Western Australia. Woodside plans to bring gas from Scarborough to Murujuga (the Burrup Peninsula) through a pipeline that is approximately 430km long, to Woodside's Pluto gas plant. The development of the Scarborough project involves different work programs. An overview of those work programs is included in the attached documents.

In preparation for this work, Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the risks identified and will be outlined in the Environmental Plan (EP).

We have a number of detailed Consultation Information Sheets, available on our website, which provide further background on the proposed approaches, including a summary of potential key risks and associated management measures for the primary activity and alternative options.

Woodside is seeking to understand the nature of the interests that Buurabalayji Thalanyji Aboriginal Corporation (BTAC) and its members may have in the 'environment that may be affected' (EMBA) by

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this activity. The EMBA is the total area over which unplanned events could have environmental impacts, as set out in the Summary Information sheet attached.

If you would like to speak with us, please let us know by **20 February 2023**. Please also let us know how you would like us to engage with you as soon as possible.

If there is any support or specific information that BTAC requires to prepare for a meeting, please let me know. In the meantime, I have attached for BTAC's review:

- 1. A Summary Overview of the Scarborough project; and
- 2. Respective Summary Information sheets

BTAC can also provide feedback directly to on the details below, to Feedback@woodside.com.au or by calling 1800 442 977, or directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority to communications@nopsema.gov.au or (08) 6188 8700.

Please feel free to forward this email and, the attached documents to BTAC members as required. Woodside would be pleased to speak with BTAC members in addition to the BTAC Board / office holders.

We look forward to hearing from you.

Kind regards

on behalf of Consultant to First Nations & Communities | Corporate Affairs

1.37 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (23 January 2023)

Dear

I hope this message finds you well.

mentioned that I sent the below email to the wrong email address. I am sorry about this.

As always, please don't hesitate to contact me if you have any questions. I'll also reach out this week by phone.

Sincerely

1.38 Email sent to Australian Border Force (ABF), Director of National Parks (DNP), Australian Maritime Safety Authority (AMSA) – Marine Pollution, Department of Transport (DoT), Department of Biosecurity, Conservation and Attractions (DBCA), Department of Industry, Science and Resources (DISR), Department of Mines, Industry Regulation and Safety (DMIRS), Australian Petroleum Production and Exploration Association (APPEA) (27 January 2023)

Dear Stakeholder

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Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:		3		Seabed site surveys and installation of

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	activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m — 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities

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Distance from Operational Area to nearest town Distance from Operational Area to nearest marine park	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier. • The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary • Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier. • ~83 km north of the Gascoyne Marine Park (Cwlth) • ~206 km north-west of Montebello Marine Park (Cwlth) • ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~214 km north-west of Exmouth. • ~46 km north of Gascoyne Marine Park Multiple Use Zone	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier. • ~ 77 km north of the Gascoyne Marine Park (Cwlth) • ~ 201 km north-west of Montebello Marine Park (Cwlth) • ~ 180 km north- northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge • Offshore construction vessel • Rock Installation Vessel • Survey vessels	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June) 	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels

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Support vessels	installation or	Support vessels
Fuel bunkering vessels	contingent activities	
 Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels 	 contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels 	
Offshore construction vessel		
• Survey vessels		
Fuel bunkering vessels		

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

Woodside Feedback

1.39 Email sent to Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) – Marine Safety (27 January 2023)

Dear AHO and AMSA

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Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our website.

Woodside will make available a shipping lane figure as soon as possible.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

Activity:

SITI EP	D&C EP	Seismic EP	Subsea EP
SITILE	D&C LF	Seisiffic LF	Subsea LF

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Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visual pre- and postinstallation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities

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Distance from Operational Area to nearest town Distance from Operational Area to nearest marine park	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier. • The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary • Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier. ~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier. • ~ 77 km north of the Gascoyne Marine Park (Cwlth) • ~ 201 km north-west of Montebello Marine Park (Cwlth) • ~ 180 km north- northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship — 500 m radius from each well centre • Moored MODU — 4,000 m radius from each well centre. • Installation vessel — 1,500 m radius around subsea locations	Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge • Offshore construction vessel • Rock Installation Vessel • Survey vessels	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June) 	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels

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Support vessels	installation or	 Support vessels
Fuel bunkering vessels	contingent activities	
Trunkline installation:	Support vessels	
 Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels 	including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

Woodside Feedback

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1.40 Email sent to Department of Climate Change, Energy, the Environment and Water (do) / Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries and Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (3 February 2023)

Dear Department of Climate Change, Energy, the Environment and Water (DCCEEW) and Department of Agriculture, Fisheries and Forestry (DAFF)

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

Woodside advises there are a number of historical shipwrecks which have been recorded within the EMBA for the proposed activities. Please find a list relevant to each EP attached. **Also attached are Commonwealth fishery figures.**

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

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If you have additional feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 5 March 2023.

Please note this consultation information is of relevance to both DCCEEW and DAFF.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA- 61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities

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Estimated duration:	Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints. ~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days ~214 km north-west of	occurring in multiple campaigns). ~18 months (cumulative) for the survey and installation activities ~ 244 km north-
Distance from Operational Area to nearest town	Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	of Exmouth, 374 km west- northwest of Dampier.	Exmouth.	northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated

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Vessels:	Seabed intervention: • Trailing suction hopper dredge • Offshore construction vessel • Rock Installation Vessel • Survey vessels • Support vessels • Fuel bunkering vessels Trunkline installation: • Pipelay Vessel multijoint operation • Shallow Water Lay Barge • Anchor handling vessel/tug • Pipe supply vessels • Offshore construction vessel • Survey vessels • Fuel bunkering vessels	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)	throughout the proposed activities Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Surport vessels
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If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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Scarborough Drilling and Completions Environment Plan

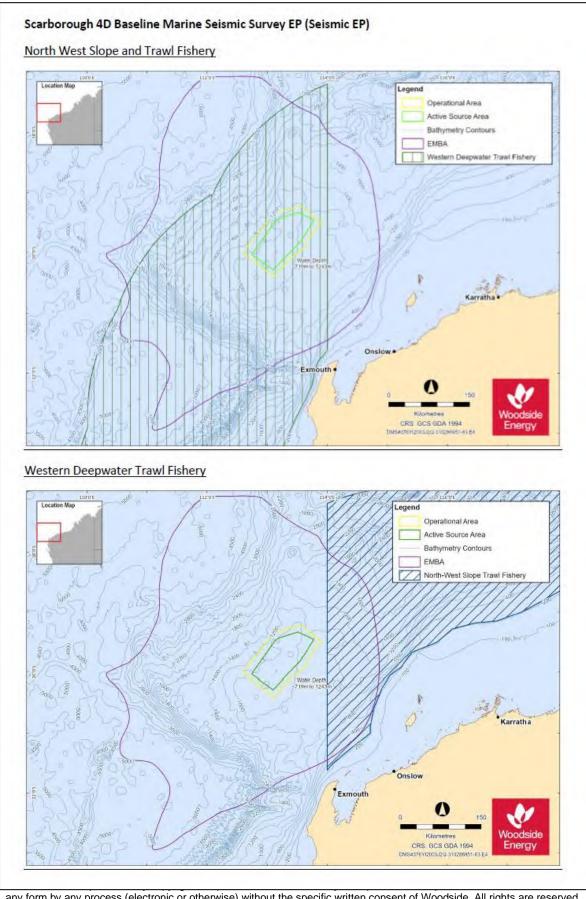
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1.41 Email sent to Department of Defence (DoD) (27 January 2023)

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP); and
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP).

Woodside is also planning to undertake seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

Woodside is also seeking access to sufficient data or a map of Defence Restricted and Prohibited Areas to inform Woodside's development of defence zone maps and figures for DoD's use.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

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Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

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Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
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Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
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Vessels:	Seabed intervention: • Trailing suction hopper dredge	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and 	 Light construction vessels Heavy construction vessels Heavy lift vessels

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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

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Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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1.42 Email sent to Recfishwest, Marine Tourism WA and WA Game Fishing Association (27 January 2023)

Dear Stakeholder

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling
 and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (**Seismic EP**); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

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More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

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Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).

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		~50 – 60 days per well	~55 – 70 days	~18 months
Estimated duration:	~24 months across multiple campaigns	, ,	·	(cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for 	A purpose-built seismic vessel One support vessel A potential chase vessel, and	 Light construction vessels Heavy construction vessels Heavy lift vessels
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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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any form by any process (electronic or otherwise)) without the specifi	c written consent of Woodside. All rig	hts are reserved.
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1.43 Email sent to Western Gas, Exxon Mobil Australia Resources Company, Shell Australia, Finder Energy, KUFPEC, Santos, OMV Australia / Sapura OMV Upstream (WA), (27 January 2023)

Dear Titleholder

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling
 and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

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More information on the Scarborough Project can be found here.

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Activity:

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	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
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	<u> </u>	50 60 days per well	~55 – 70 days	~18 months
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	·	(cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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1.44 Email sent to Chevron Australia and Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon via Chevron Australia (27 January 2023)

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Deai	

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We would be grateful if you could please forward this consultation information to your Joint Venture participants Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon for feedback.

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1.45 Email sent to Karratha Community Liaison Group (27 January 2023)

Dear Karratha Community Liaison Group

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

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- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

Activity:

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	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).

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	<u> </u>	~50 – 60 days per well	~55 – 70 days	~18 months
Estimated duration:	~24 months across multiple campaigns	, ,	·	(cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and 	 Light construction vessels Heavy construction vessels Heavy lift vessels
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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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any form by any process (electronic or otherwise) without the speci	fic written consent of Woodside. All rig	hts are reserved.
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1.46 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (27 January 2023)



Firstly, thank you for your correspondence of 20 February regarding consultations about the Scarborough project. We will respond to this correspondence in the coming days and would be most grateful for the opportunity to meet with you to discuss the matters raised in your letter and our relationship more broadly.

Further to my correspondence of 18 January regarding Woodside's plan to remove the Nganhurra Riser Turret Mooring (RTM), and of 20 January regarding Woodside's Scarborough project, please find attached information about Woodside's decommissioning and drilling activities that we are seeking to consult with Buurabalayji Thalanyji Aboriginal Corporation (BTAC) about.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which Woodside is seeking BTAC's feedback as soon as possible, Woodside is seeking BTAC's feedback on these decommissioning and drilling activities by 17 March. The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

- Removal of the Nganhurra Riser Turret Mooring (RTM). Information about the RTM was previously emailed on 18 January. For ease of reference, the summary information is attached and the consultation information sheet for the RTM can be found at the link below.
 - consultation-information-sheet---nganhurra-operations-cessation-environment-planrevision.pdf (woodside.com)
- Stybarrow. This involves two work activities that are subject to separate environment plans; plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf</u> (woodside.com)
 - Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- Griffin decommissioning.
 - consultation-information-sheet---griffin-decommissioning-environment-plans.pdf (woodside.com)

Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment Plan (woodside.com)

We look forward to meeting with you to discuss and respond to the matters raised in your letter, this correspondence, and to discuss other matters important to BTAC and Woodside.

Thank you, for yours and consideration and work to progress these important consultations. We are looking forward to working with BTAC.

As always, please feel free to contact me on the details below if you require further information or assistance.

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Yours sincerely

Consultant to First Nations & Communities | Corporate Affairs

1.47 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (27 January 2023)



I hope your week is travelling nicely.

I left a message this morning, just to reach out to see if you require any further information about Scarborough or the RTM at this point, or whether you need anything from Woodside to assist with BTAC's consideration.

As always, please call / email if you need anything. I would also be more than happy to meet up if you would like, to brief you on these matters and to plan together how Woodside should best approach consultation.

Have a great weekend.



1.47.1 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (14 September 2023)



Further to my correspondence yesterday about a number of Woodside's decommissioning and project activities, I write regarding three of Woodside's Scarborough activities that have been the subject of our consultations to date, particularly in relation to potential impacts to BTAC's interests, functions or activities in the environment that may be affected (EMBA) by these activities.

These activities are covered under the following environment plans (EPs):

Scarborough Project Activities

- 1. Scarborough Seabed Intervention and Trunkline Installation
- 2. Scarborough Drilling and Completions
- 3. Scarborough Subsea Infrastructure Installation

I am writing to notify you of Woodside's planned commencement date of these activities, and to seek your confirmation in relation to the following matters on or before the dates set out in the tables below:

- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by these activities that have not yet been afforded the opportunity to provide information that may inform the management of the activities; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

Environment Plan Open for Feedback	Planned Activity	Please Provide
	Commencement	Feedback By:

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Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	28 Sep 2023
Scarborough Drilling and Completions	19 Oct 2023	28 Sep 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	28 Sep 2023

I have attached the information relevant to each of these activities, and ask that you please distribute it to members or individuals who may be interested.

As with all of our activities, consultation remains ongoing. This means that we will take any feedback regarding the activities, or any other relevant information you may wish to provide, at any time during the activities and will assess this information using the mechanisms described in the EPs.

As you are aware, NOPSEMA has published a number of documents on consultation (please see Document Hub | NOPSEMA). For your convenience we have provided links to the following recent publications below:

- Brochure: Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- Guideline: Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- **Policy:** <u>Draft policy for managing gender-restricted information PL2098.pdf (nopsema.gov.au)</u>.

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support their participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

We look forward to ongoing consultation with BTAC and to progressing the various matters that have been the subject of our meetings and correspondence to date. As always, please let us know how we can support BTAC to progress these matters and to participate in ongoing consultation with Woodside.



1.48 Email sent to Exmouth Community Liaison Group (1 February 2023)

Dear Exmouth Community Reference Group

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

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- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling
 and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our website.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021 (https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 3 March 2023.

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Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP	
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visua pre- and postinstallation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU).	
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.	
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m	
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).	

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	<u> </u>	50 60 days per well	~55 – 70 days	~18 months	
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	·	(cumulative) for the survey and installation activities	
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.	
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth) 	
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	this area during the survey to ensure the	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities	
Vessels:	Seabed intervention: • Trailing suction hopper dredge	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and 	 Light construction vessels Heavy construction vessels Heavy lift vessels 	
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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 3 March 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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1.49 Email sent to Commonwealth Fisheries Association (CFA), Australian Southern Bluefin Tuna Industry Association (ASBTIA) and Tuna Australia, North West Slope and Trawl Fishery (4 Licence Holders), Western Deepwater Trawl Fishery (5 Licence Holders) (3 February 2023)

Dear Fishery Stakeholder

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling
 and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

Consultation Information Sheets are attached, which provide background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. **Also attached are Commonwealth fishery figures.**

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **5 March 2023**.

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Activity:

Activity:	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA- 61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).

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Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an ention for	A purpose-built seismic vessel One support vessel A potential chase	Light construction vessels Heavy construction vessels
	nent is protected by copyright. No p	vessel as an option for	vessel, and	Heavy lift vessels

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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

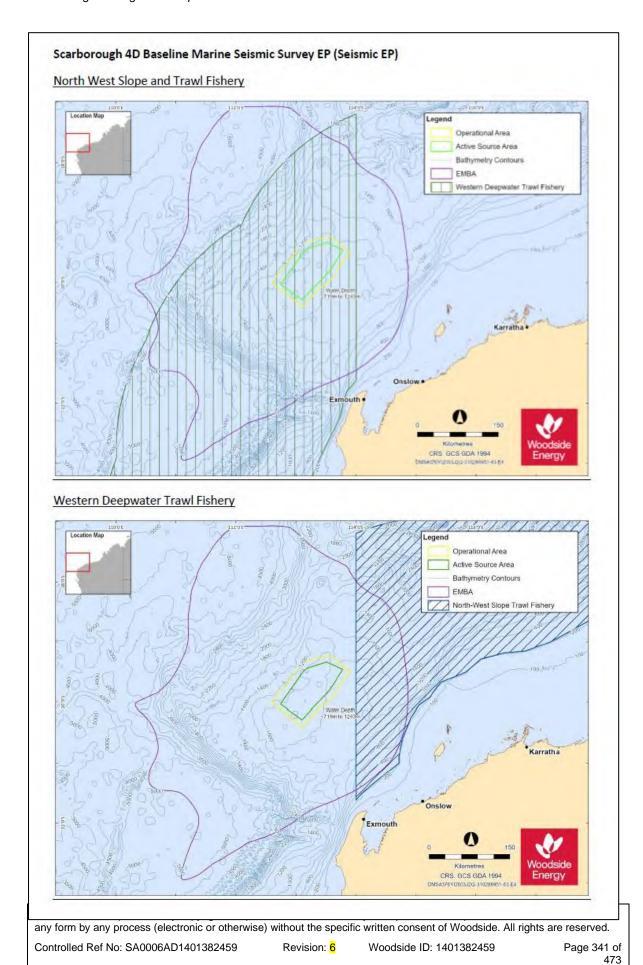
Please provide your views by 5 March 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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any form by any process (electronic or otherwise) without the speci	fic written consent of Woodside. All rig	hts are reserved.
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1.50 Letter sent to Marine Aquarium Managed Fishery (12 Licence Holders),
Mackerel Managed Fishery (Area 2 and 3) (43 Licence Holders), West Coast
Deep Sea Crustacean Managed Fishery (7 Licence Holders) (3 February
2023)

Please direct all responses/queries to Woodside Feedback T: 1800 442 977 E: Feedback@woodside.com.au

3 February 2023



Woodside Energy Group Ltd

ACN 004 898 962 Mia Yellagonga 11 Mount Street Perth WA 6000 Australia

T: +61 8 9348 4000 www.woodside.com

Dear Fishery Stakeholder

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our website. Also attached are State fishery figures.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the SITI EP to NOPSEMA which has been available on the NOPSEMA website since January 2022 (https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the D&C EP has been available on the NOPSEMA website since November 2021 (https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the Seismic EP has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the Scarborough
Offshore Project Proposal (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 5 March 2023 2023.

Activity:

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	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visu pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancilla infrastructure, require for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU Mooring legs and
Location:	Activities run from the Scarborough FPU in WA- 61-L in Commonwealth	Activities are located in Permit Area WA-61-L in Commonwealth waters,	The seismic survey will cover the Scarborough and Jupiter fields within	suction piles will also be installed and a gravimentry survey is also planned. Activities are located permit Areas WA-61- and WA-62-L, around
	waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	about 374 km west- northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	Australia.	374 km west-northw of Dampier, Westerr Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 20; (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 - 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities

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Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west- northwest of Dampier.		~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwith) ~206 km north-west of Montebello Marine Park (Cwith) ~208 km north- northwest of Ningaloo Marine Park (Cwith)	~46 km north of Gascoyne Marine Park Multiple Use Zone	~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north- northwest of Ningaloo Marine Park (Cwlth)
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Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support	A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)	Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

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Shallow Water Lay	vessels	
Barge		
Anchor handling		
vessel/tug		
Pipe supply vessels	3	
Offshore construction	on	
vessel		
Survey vessels		
Fuel bunkering vess	sels	

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

Woodside Feedback



Woodside Energy Mia Yellagonga Karlak, 11 Mount Street Perth WA 6000 Australia T: 1800 442 977

E: feedback@woodside.com.au

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APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

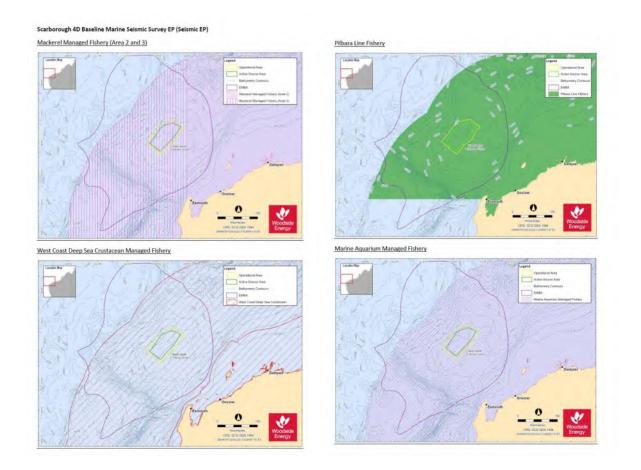
Attached: Consultation Information Sheets for the SITI EP, D&C EP, Seismic EP and Subsea EP, Fishery figures

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1.51 Email sent to Department of Primary Industries and Regional Development (DPIRD) (3 February 2023)



Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
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- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
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As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

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(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

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More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **5 March 2023 2023**.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the

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Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	Australia.	Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
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Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
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Operational Area and	Temporary 500 m exclusion zones will apply around applicable seabed	A petroleum safety zone of 500 m will be in place around the MODU and	Three nautical mile radius safe navigation area around the	The Operational Area for activities includes a radius of:

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Exclusion intervention and the installation vessel for the seismic vessel, • 1,000 m around Zones Trunkline installation duration of activities. streamers and tail location of the vessels. The Operational Areas buoys during seismic outermost concrete The Operational Areas operations pads. are: • DP MODU/drillship -• Marine users are • 1.500 m around Trunkline Project Area: 500 m radius from each requested to avoid location of subsea The proposed trunkline well centre this area during the infrastructure. from around KP 32 • Moored MODU – 4.000 survey to ensure the • 2.000 m around (Commonwealth m radius from each well safety of the seismic future location of State Boundary) to KP centre. vessel and third-party FPU. 435 and 1.5 km either Installation vessel – vessels • Temporary 500 m side of the proposed 1,500 m radius around Refer to Table 3 of the exclusion zone trunkline centreline. subsea locations attached Seismic EP around vessels to Offshore Borrow Consultation manage vessel Ground Project Area: Information Sheet for movements Offshore Borrow detailed survey An interactive map Ground located in location points showing the location Commonwealth of the proposed waters. activities will be available on the Woodside website and will be updated throughout the proposed activities • Light construction • Installation vessels for • A purpose-built Seabed intervention: Vessels: vessels installing the subsea seismic vessel Trailing suction hopper infrastructure • One support vessel Heavy construction dredge • Light well intervention • A potential chase vessels Offshore construction vessel as an option for vessel, and · Heavy lift vessels vessel well intervention. • An additional spotter Derrick lay vessel Rock Installation subsea hardware vessel (May to June) Reel-lay vessels Vessel installation or Survey vessels Survey vessels contingent activities Support vessels Support vessels Support vessels • Fuel bunkering vessels including installation Trunkline installation: vessel(s), anchor handling vessel(s) and Pipelav Vessel multigeneral supply/support joint operation vessels Shallow Water Lay Barge Anchor handling vessel/tug • Pipe supply vessels Offshore construction vessel

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

• Fuel bunkering vessels

Survey vessels

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any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved Controlled Ref No: SA0006AD1401382459 Revision: 6 Woodside ID: 1401382459 Page 349

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Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

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Please provide your views by 5 March 2023.

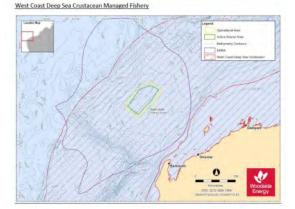
Regards,

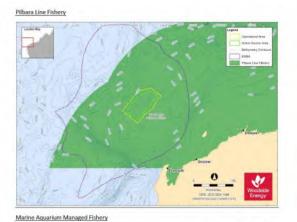
APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP









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1.52 Email sent to Western Australian Fishing Industry Council (WAFIC) (3 February 2023)

Dear

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
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- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (**Seismic EP**); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. **Also attached are State fishery figures.**

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the Scarborough Offshore Project Proposal (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have additional feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 5 March 2023 2023.

Activity:

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	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).

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	<u> </u>	50 60 days per well	~55 – 70 days	~18 months
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	·	(cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: • Trailing suction hopper dredge	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and 	 Light construction vessels Heavy construction vessels Heavy lift vessels
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Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	well intervention, subsea hardware installation or contingent activities • Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	An additional spotter vessel (May to June)	 Derrick lay vessel Reel-lay vessels Survey vessels Support vessels
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Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

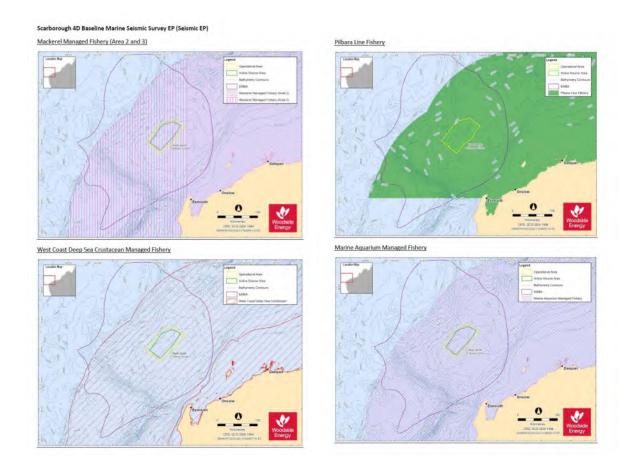
APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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any form by any process (electronic or otherwise) without the speci	fic written consent of Woodside. All rig	hts are reserved.
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1.53 Email sent to Exmouth Recreational Marine Users (50 Licence Holders) (3 February 2023)

Dear Stakeholder

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also

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included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(<u>https://info.nopsema.gov.au/environment_plans/575/show_public</u>). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **5 March 2023**.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-	Activities are located in Permit Area WA-61-L in	The seismic survey will cover the Scarborough	Activities are located in permit Areas WA-61-L
	61-L in Commonwealth waters, about 374 km	Commonwealth waters, about 374 km west-	and Jupiter fields within Commonwealth waters,	and WA-62-L, around 374 km west-northwest

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	west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.		of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are:	Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail	The Operational Area for activities includes a radius of: 1,000 m around location of the outermost concrete pads.

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The Operational Areas buoys during seismic • DP MODU/drillship -• 1,500 m around are: 500 m radius from each operations location of subsea • Trunkline Project Area: well centre Marine users are infrastructure. The proposed trunkline requested to avoid • Moored MODU – 4,000 • 2.000 m around from around KP 32 m radius from each well this area during the future location of (Commonwealth – survey to ensure the FPU. centre. State Boundary) to KP safety of the seismic Installation vessel – • Temporary 500 m 435 and 1.5 km either vessel and third-party 1,500 m radius around exclusion zone side of the proposed vessels subsea locations around vessels to trunkline centreline. Refer to Table 3 of the manage vessel • Offshore Borrow attached Seismic EP movements Ground Project Area: Consultation An interactive map Offshore Borrow Information Sheet for showing the location Ground located in detailed survey of the proposed location points Commonwealth activities will be waters. available on the Woodside website and will be updated throughout the proposed activities Installation vessels for A purpose-built Light construction Seabed intervention: Vessels: installing the subsea seismic vessel vessels Trailing suction hopper infrastructure Heavy construction One support vessel dredge • Light well intervention vessels A potential chase Offshore construction vessel as an option for vessel, and Heavy lift vessels vessel well intervention, • An additional spotter Derrick lay vessel Rock Installation subsea hardware vessel (May to June) Reel-lay vessels Vessel installation or Survey vessels Survey vessels contingent activities Support vessels Support vessels Support vessels • Fuel bunkering vessels including installation Trunkline installation: vessel(s), anchor • Pipelay Vessel multihandling vessel(s) and general supply/support joint operation vessels Shallow Water Lay Barge Anchor handling vessel/tug • Pipe supply vessels • Offshore construction vessel • Survey vessels • Fuel bunkering vessels

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations* 2009 (Cth).

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Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

1.54 Email sent to Western Australian Marine Science Institution (WAMSI) (3 February 2023)

_	
Dear	

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the Seismic EP has

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been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

Woodside is seeking your advice regarding any research activities that WAMSI may be undertaking that may overlap with our proposed activities.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **5 March 2023**.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west- northwest of Dampier, Western Australia.		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
	Dampier Archipelago.	well locations for the eight		

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Approx. Water Depth (m):	~ 32 m – 1400 m	planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet. ~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth –	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure.

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	State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	Moored MODU – 4,000 m radius from each well centre. Installation vessel – 1,500 m radius around subsea locations	safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	 2,000 m around future location of FPU. Temporary 500 m exclusion zone around vessels to manage vessel movements An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June) 	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

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Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

Woodside Feedback

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

1.55 Email sent to Australian Fisheries Management Authority (AFMA) (3 February 2023)

Dear AFMA

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. Also attached are Commonwealth fishery figures.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the D&C EP has

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been available on the NOPSEMA website since November 2021 (https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the Seismic EP has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have additional feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 5 March 2023.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the
Location:	Activities run from the Scarborough FPU in WA- 61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west- northwest of Dampier, Western Australia.	The seismic survey will cover the Scarborough and Jupiter fields within Commonwealth waters, located in the Exmouth Plateau, approximately	Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
	waters boundary at the northern extent of the Dampier Archipelago.	Approximate development well locations for the eight	*	

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Approx. Water Depth (m):	~ 32 m – 1400 m	planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet. ~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth –	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure.

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	State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	Moored MODU – 4,000 m radius from each well centre. Installation vessel – 1,500 m radius around subsea locations	safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	 2,000 m around future location of FPU. Temporary 500 m exclusion zone around vessels to manage vessel movements An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June) 	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

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Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

Woodside Feedback

1.56 Email sent to Pilbara Line Fishery (8 Licence Holders) (3 February 2023)

Dear Fishery Stakeholder

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (**Seismic EP**); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. **Also attached are State fishery figures.**

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the Seismic EP has

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been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **5 March 2023 2023**.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.

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		attached D°C ED		
		attached D&C EP Consultation Information		
		Sheet.		
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre.	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU.

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	435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	Installation vessel – 1,500 m radius around subsea locations	vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	 Temporary 500 m exclusion zone around vessels to manage vessel movements An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels	A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 5 March 2023.

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Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

1.57 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) (6 February 2023)

Dear CSIRO	Enquiries	Team	and	
Dodi Conto		ı cuiii,	ana	

Woodside previously noted (see email below) that there will be a number of opportunities to provide feedback on its proposed activities.

Woodside previously consulted you on its submitted Environment Plan (EPs) to undertake seabed intervention and trunkline installation activities under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP – Commonwealth and State components).

As part of its ongoing consultation with the CSIRO, Woodside is also seeking your advice regarding any research activities that CSIRO may be undertaking that may overlap with our proposed activities regarding:

- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. Also attached are Commonwealth fishery figures.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the Seismic EP has

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been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have additional feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 8 March 2023.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP		Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.

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		Consultation Information Sheet.		
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints. Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.		Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre.	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU.

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	side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	Installation vessel – 1,500 m radius around subsea locations	Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	 Temporary 500 m exclusion zone around vessels to manage vessel movements An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Support vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation Shallow Water Lay Barge Anchor handling vessel/tug Pipe supply vessels Offshore construction vessel Survey vessels Fuel bunkering vessels	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels 	A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by **8 March 2023**.

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Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

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1.58 Letter sent to Gascoyne Recreational Marine Users (65 Licence Holders) (6 February 2023)

Please direct all responses/queries to: Woodside Feedback T: 1800 442 977 E: Feedback@woodside.com.au

6 February 2023



Woodside Energy Group Ltd

ACN 004 898 982 Mila Yellagonga 11 Mount Street Perth WA 6000 Australia

T: +61 8 9348 4000

Dear Stakeholder

Woodside previously consulted you on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITLEP);
- drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the SITI EP to NOPSEMA which has been available on the NOPSEMA website since January 2022 (https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the D&C EP has been available on the NOPSEMA website since November 2021 (https://info.nopsema.gov.au/environment_plans/555/show_public). Revision 0 of the Seismic EP has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 8 March 2023 2023.

Activity:

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	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline	infrastructure. Activities include visu pre- and post- installation surveys, and installation of flowlines, umbilicals and risers and ancilla infrastructure, require for the flow and control of hydrocarbons and produced water to the
Location:	Activities run from the Scarborough FPU in WA- 61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-81-L in Commonwealth waters, about 374 km west- northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	The seismic survey will cover the Scarborough and Jupiter fields within Commonwealth waters, located in the Exmouth Plateau, approximately 214 km north west of Exmouth, Western Australia.	Activities are jocated permit Areas WA-61 and WA-62-L, around 374 km west-northwoof Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 202 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities

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Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	of Exmouth, 374 km west- northwest of Dampier.	Exmouth.	~ 244 km north- northwest of Exmouth ~ 374 km west- northwest of Dampier
Distance from Operational Area to nearest marine park	The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cooth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	• ~48 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of th Gascoyne Marine Park (Cwlth) ~ 201 km north-we of Montebello Marine Park (Cwlth ~ 180 km north- northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points	The Operational Are for activities includes a radius of: 1,000 m around location of the outermost concrete pads. 1,500 m around location of subsea infrastructure. 2,000 m around future location of FPU. Temporary 500 m exclusion zone around vessels to manage vessel movements An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	Seabed intervention: Trailing suction hopper dredge Offshore construction vessel Rock Installation Vessel Survey vessels Survey vessels Fuel bunkering vessels Trunkline installation: Pipelay Vessel multijoint operation	Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support	A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)	Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Surport vessels

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	 Shallow Water Lay 	vessels	
	Barge		
	 Anchor handling 		
	vessel/tug		
	Pipe supply vessels		
1			
1	 Offshore construction 		
	vessel		
	 Survey vessels 		
	 Fuel bunkering vessels 		

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 8 March 2023.

Regards,

Woodside Feedback



Woodside Energy T: 1800 442 977
***: Yellenning E: feedback@woodside.com.au Karlak, 11 Mount Street www.woodside.com
Perth WA 6000 f y in □ ③ Australia

ADDENDIV A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

Attached: Consultation Information Sheets for the SITI EP, D&C EP, Seismic EP and Subsea EP

1.59 Email sent to UWA (6 February 2023)

Dear

Woodside appreciated the opportunity to meet with you in December to discuss the Scarborough development and related Environment Plans (Scarborough EPs).

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We understand from our meeting in December 2022 that the proposed Scarborough activities are predominantly outside the scope of interest for UWA. For awareness, Woodside wanted to bring to your attention that it has updated its consultation Information Sheets for the Scarborough EPs, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are attached and are also available on our website.

As Woodside will soon be submitting the proposed EP's, should UWA have any additional feedback on the proposed activities, please let us know by **8 March 2023**. More information on the Scarborough Project can be found here.

Your feedback and our response will be included in the Scarborough EPs which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Regards, Woodside Feedback

1.60 Email sent to The Australian Institute of Marine Science (AIMS) (6 February 2023)



Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our website.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021 (https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

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Woodside is preparing to submit a further revision of the D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

Woodside is seeking your advice regarding any research activities that AIMS may be undertaking that may overlap with our proposed activities.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 8 March 2023.

Activity:

Activity:	D&C EP	Seismic EP	Subsea EP
Summary:	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	Seabed site surveys and installation of subsea production infrastructure. Activities include visual preand post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the Scarborough Floating Production Unit (FPU). Mooring legs and suction piles will also be installed and a gravimentry survey is also planned.
Location:	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	The seismic survey will cover the Scarborough and Jupiter fields within Commonwealth waters, located in the Exmouth Plateau, approximately 214 km north west of Exmouth, Western Australia.	Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m

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Earliest commencement date: Estimated duration: Distance from Operational	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints. ~50 – 60 days per well ~244 km north-northwest of Exmouth, 374 km west-	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints. ~55 – 70 days ~214 km north-west of Exmouth.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns). ~18 months (cumulative) for the survey and installation activities ~ 244 km north-northwest of Exmouth, ~ 374 km west-
Area to nearest town	northwest of Dampier.		northwest of Dampier.
Distance from Operational Area to nearest marine park	~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	~46 km north of Gascoyne Marine Park Multiple Use Zone	~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and Exclusion Zones	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points 	The Operational Area for activities includes a radius of: • 1,000 m around location of the outermost concrete pads. • 1,500 m around location of subsea infrastructure. • 2,000 m around future location of FPU. • Temporary 500 m exclusion zone around vessels to manage vessel movements • An interactive map showing the location of the proposed activities will be available on the Woodside website and will be updated throughout the proposed activities
Vessels:	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June) 	 Light construction vessels Heavy construction vessels Heavy lift vessels Derrick lay vessel Reel-lay vessels Survey vessels Support vessels

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Support vessels including installation	
vessel(s), anchor	
handling vessel(s) and	
general supply/support	
vessels	

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 8 March 2023.

Regards, Woodside Feedback

1.61 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) (6 February 2023)

	_	-	-	-	-
Dear CSIRO	Enquiries	Team,		and	

Woodside previously noted (see email below) that there will be a number of opportunities to provide feedback on its proposed activities.

Woodside previously consulted you on its submitted Environment Plan (EPs) to undertake seabed intervention and trunkline installation activities under the Scarborough Seabed Intervention and Trunkline Installation EP (**SITI EP –** Commonwealth and State components).

As part of its ongoing consultation with the CSIRO, Woodside is also seeking your advice regarding any research activities that CSIRO may be undertaking that may overlap with our proposed activities regarding:

- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (**Subsea EP**).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>. Also attached are Commonwealth fishery figures.

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As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes. The Subsea EP has not yet been submitted to NOPSEMA.

The SITI EP, D&C EP and Subsea EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have additional feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 8 March 2023.

Activity:

	SITI EP	D&C EP	Seismic EP	Subsea EP
Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).	infrastructure. Activities include visual pre- and post-installation surveys, and installation of flowlines, umbilicals and risers and ancillary infrastructure, required for the flow and control of hydrocarbons and produced water to the

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Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	Australia.	Activities are located in permit Areas WA-61-L and WA-62-L, around 374 km west-northwest of Dampier, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m	~ 900 m – 1000 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 (and estimated to be completed in 18 months with activities occurring in multiple campaigns).
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days	~18 months (cumulative) for the survey and installation activities
Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier.	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth.	~ 244 km north- northwest of Exmouth, ~ 374 km west- northwest of Dampier.
Distance from Operational Area to nearest marine park	 The trunkline corridor runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone 	 ~83 km north of the Gascoyne Marine Park (Cwlth) ~206 km north-west of Montebello Marine Park (Cwlth) ~208 km north-northwest of Ningaloo Marine Park (Cwlth) 	• ~46 km north of Gascoyne Marine Park Multiple Use Zone	 ~ 77 km north of the Gascoyne Marine Park (Cwlth) ~ 201 km north-west of Montebello Marine Park (Cwlth) ~ 180 km north-northwest of Ningaloo Marine Park (Cwlth)
Operational Area and	Temporary 500 m exclusion zones will apply around applicable seabed	A petroleum safety zone of 500 m will be in place around the MODU and	Three nautical mile radius safe navigation area around the	The Operational Area for activities includes a radius of:

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Exclusion intervention and the installation vessel for the seismic vessel, • 1,000 m around Zones Trunkline installation duration of activities. streamers and tail location of the vessels. The Operational Areas buoys during seismic outermost concrete The Operational Areas operations pads. are: • DP MODU/drillship -• Marine users are • 1.500 m around Trunkline Project Area: 500 m radius from each requested to avoid location of subsea The proposed trunkline well centre this area during the infrastructure. from around KP 32 • Moored MODU – 4.000 survey to ensure the • 2.000 m around (Commonwealth m radius from each well safety of the seismic future location of State Boundary) to KP centre. vessel and third-party FPU. 435 and 1.5 km either Installation vessel – vessels • Temporary 500 m side of the proposed 1,500 m radius around Refer to Table 3 of the exclusion zone trunkline centreline. subsea locations attached Seismic EP around vessels to Offshore Borrow Consultation manage vessel Ground Project Area: Information Sheet for movements Offshore Borrow detailed survey An interactive map Ground located in location points showing the location Commonwealth of the proposed waters. activities will be available on the Woodside website and will be updated throughout the proposed activities • Light construction • Installation vessels for • A purpose-built Seabed intervention: Vessels: vessels installing the subsea seismic vessel Trailing suction hopper infrastructure • One support vessel Heavy construction dredge • Light well intervention • A potential chase vessels Offshore construction vessel as an option for vessel, and · Heavy lift vessels vessel well intervention. • An additional spotter Derrick lay vessel Rock Installation subsea hardware vessel (May to June) Reel-lay vessels Vessel installation or Survey vessels Survey vessels contingent activities Support vessels • Support vessels Support vessels • Fuel bunkering vessels including installation Trunkline installation: vessel(s), anchor handling vessel(s) and Pipelav Vessel multigeneral supply/support joint operation vessels Shallow Water Lay Barge Anchor handling vessel/tug • Pipe supply vessels Offshore construction vessel

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

• Fuel bunkering vessels

Survey vessels

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any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved.

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Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by **8 March 2023**.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP	Subsea EP

1.62 Email sent to Australian Border Force (ABF), Director of National Parks (DNP), Australian Maritime Safety Authority (AMSA) – Marine Pollution, Department of Industry, Science and Resources (DISR), Department of Mines, Industry Regulation and Safety (DMIRS), Australian Petroleum Production and Exploration Association (APPEA) (22 February 2023)

Dear Stakeholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.63 Email sent to Australian Fisheries Management Authority (AFMA) (22 February 2023)

Dear AFMA

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

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1.64 Email sent to Western Australian Fishing Industry Council (WAFIC) (22 February 2023)

Dear

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan. Kind regards,

1.65 Email sent to Exmouth Recreational Marine Users (50 Licence Holders) (22 February 2023)

Dear Stakeholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan. Kind regards,

1.66 Email sent to Yinggarda Aboriginal Corporation (YAC) via Yamatji Marlpa Aboriginal Corporation (YMAC) (22 February 2023)



I hope this message finds you well.

Further to my correspondence of 18 January regarding Woodside's plan to remove the Nganhurra Riser Turret Mooring (RTM), and correspondence of 20 January regarding Woodside's Scarborough project, please find attached information about Woodside's decommissioning and drilling activities that we are seeking to consult with Yinggarda Aboriginal Corporation (YAC) about.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which Woodside is seeking YAC's feedback as soon as possible, Woodside is seeking YAC's feedback on these decommissioning and drilling activities by 17 March. The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

- Removal of the Nganhurra Riser Turret Mooring (RTM). Information about the RTM was
 previously emailed on 18 January. For ease of reference, the summary information is
 attached and the consultation information sheet for the RTM can be found at the link below.
 - o <u>consultation-information-sheet---nganhurra-operations-cessation-environment-plan-revision.pdf (woodside.com)</u>
- Stybarrow. This involves two work activities that are subject to separate environment plans; plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf (woodside.com)</u>
 - Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- · Griffin decommissioning.

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o <u>consultation-information-sheet---griffin-decommissioning-environment-plans.pdf</u> (woodside.com)

Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - o <u>Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment</u> Plan (woodside.com)

In providing this information and requests for feedback, I acknowledge correspondence of 6 February and my response of 10 February in which we discussed arrangements for a meeting between YAC and Woodside. Woodside would be most grateful for the opportunity to meet with YAC, at YAC's earliest convenience, and at a location suitable to YAC. Woodside would also be pleased to provide the resources necessary to hold this meeting and we look forward to receiving a budget for consideration. If there is anything else, we can do at this time to facilitate consultation about these planned work activities please let me know.

Thank you, for yours, YAC's and YMAC's consideration of these matters and work to progress these important consultations.

As always, please feel free to contact me on the details below if you require further information or assistance.

Yours sincerely



1.66.1 Email sent to Yinggarda Aboriginal Corporation via Banks-Smith & Assoc (BSA) (14 September 2023)

Dear

Further to my correspondence yesterday about a number of Woodside's decommissioning and project activities, and my email earlier today regarding a consultation framework / agreement between YAC and Woodside, I write regarding three of Woodside's Scarborough activities. These activities were discussed during our meeting with the YAC Board in early July, particularly in relation to potential impacts to YAC's interests, functions or activities in the environment that may be affected (EMBA) by these activities.

These activities are covered under the following environment plans (EPs):

Scarborough Project Activities

- 1. Scarborough Seabed Intervention and Trunkline Installation
- 2. Scarborough Drilling and Completions
- 3. Scarborough Subsea Infrastructure Installation

I am writing to notify you of Woodside's planned commencement date of these activities, and to seek your confirmation in relation to the following matters on or before the dates set out in the tables below:

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- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by these activities that have not yet been afforded the opportunity to provide information that may inform the management of the activities; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

Environment Plan Open for Feedback		Please Provide Feedback By:
Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	28 Sep 2023
Scarborough Drilling and Completions	19 Oct 2023	28 Sep 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	28 Sep 2023

I have attached the information relevant to each of these activities, and ask that you please distribute it to members or individuals who may be interested.

As with all of our activities, consultation remains ongoing. This means that we will take any feedback regarding the activities, or any other relevant information you may wish to provide, at any time during the activities and will assess this information using the mechanisms described in the EPs.

As you are aware, NOPSEMA has published a number of documents on consultation (please see Document Hub | NOPSEMA). For your convenience we have provided links to the following recent publications below:

- Brochure: Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- Guideline: Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- Policy: <u>Draft policy for managing gender-restricted information PL2098.pdf</u> (nopsema.gov.au).

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support their participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

We look forward to ongoing consultation with YAC and to progressing the framework / agreement. As always, please let us know how we can support YAC to progress these matters and to participate in ongoing consultation with Woodside.

Sincerely



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1.67 Email sent to Pilbara Line Fishery (8 Licence Holders) (22 February 2023)

Dear Fishery Stakeholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.68 Letter sent to Marine Aquarium Managed Fishery (12 Licence Holders), Mackerel Managed Fishery (Area 2 and 3) (43 Licence Holders), West Coast

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Deep Sea Crustacean Managed Fishery (7 Licence Holders) (22 February 2023)

Please direct all responses/queries to: Woodside Feedback T: 1800 442 977

E: Feedback@woodside.com.au

Woodside Energy

Woodside Energy Group Ltd

ACN 004 898 962 Mia Yellagonga 11 Mount Street Perth WA 6000 Australia

T: +61 8 9348 4000 www.woodside.com

22 February 2023

Dear Fishery Stakeholder

Woodside previously consulted you (correspondence dated 3 February 2023) on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

This correspondence included updated Consultation Information Sheets, which are also available on our website, providing additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 5 March 2023 2023.

Kind regards,

Woodside Feedback



Woodside Energy Mia Yellagonga Karlak, 11 Mount Street Perth WA 6000 Australia

T: 1800 442 977 E: feedback@woodside.com.au www.woodside.com

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1.69 Letter sent to Gascoyne Recreational Marine Users (65 Licence Holders) (22 February 2023)

Please direct all responses/queries to: Woodside Feedback

T- 1800 442 977

E: Feedback@woodside.com.au

22 February 2023



Woodside Energy Group Ltd

ACN 004 898 962 Mia Yellagonga

11 Mount Street Perth WA 6000

Australia

T: +61 8 9348 4000 www.woodside.com

Dear Stakeholder

Woodside previously consulted you (correspondence dated 6 February 2023) on its submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP);
- drilling and subsea tree installation activities for eight planned development wells and the potential for a further two additional contingency wells under the WA-61-L Scarborough Drilling and Completions EP (D&C EP);
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP); and
- seabed site surveys and installation of subsea production infrastructure under the Subsea Infrastructure Installation EP (Subsea EP).

This correspondence included updated Consultation Information Sheets, which are also available on our website, providing additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by 8 March 2023 2023.

Kind regards,

Woodside Feedback



Woodside Energy Mia Yellagonga Karlak, 11 Mount Street Perth WA 6000 Australia T: 1800 442 977 E: feedback@woodside.com.au www.woodside.com

1.70 Email sent to WAMSI (22 February 2023)

Dear

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

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We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

Woodside Feedback

1.71 Email sent to Commonwealth Fisheries Association (CFA), Australian Southern Bluefin Tuna Industry Association (ASBTIA), North West Slope and Trawl Fishery, Western Deepwater Trawl Fishery (22 February 2023)

Dear Fishery Stakeholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.72 Email sent to Recfishwest, Marine Tourism WA and WA Game Fishing Association (22 February 2023)

Dear Stakeholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.73 Email sent to Chevron Australia and Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon via Chevron Australia (22 February 2023)

Dear

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

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1.74 Email sent to Western Gas, Exxon Mobil Australia Resources Company, Finder Energy, KUFPEC, Santos, OMV Australia / Sapura OMV Upstream (WA) (22 February 2023)

Dear Titleholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.75 Email sent to National Energy Resource Australia (NERA) Collaborative Seismic Environment Plan Project (CSEP) (22 February 2023)

Dear

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project.

Woodside wanted to bring to your attention that it has updated its consultation Information Sheet for the Scarborough SITI EP, D&C EP and Subsea EP, which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are attached and also available on our website.

We would appreciate any feedback you may have by **8 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.76 Email sent to Karratha Community Liaison Group (22 February 2023)

Dear Karratha Community Liaison Group

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.77 Email sent to Department of Climate Change, Energy, the Environment and Water (DCCEEW) / Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries and Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (22 February 2023)

Dear Department of Climate Change, Energy, the Environment and Water (DCCEEW) and Department of Agriculture, Fisheries and Forestry (DAFF)

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Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **5 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.78 Email sent to Exmouth Community Liaison Group (22 February 2023)

Dear Exmouth Community Reference Group

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **3 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.79 Email sent to INPEX Alpha (22 February 2023)

Dear Titleholder

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **26 February 2023** to support our development of the proposed Environment Plan.

Kind regards,

1.80 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) (22 February 2023)

Dear CSIRO Enquiries Team,	and	
----------------------------	-----	--

Woodside is sending this email by way of a reminder that the consultation period is closing soon to provide feedback on Woodside's proposed activities for the Scarborough project. Please see our consultation information below and attached.

We would appreciate any feedback you may have by **8 March 2023** to support our development of the proposed Environment Plan.

Kind regards,

Woodside Feedback

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1.81 Email sent to Ngarluma Aboriginal Corporation (NAC) (24 February 2023)

Good morning

I mentioned I would be sharing more information when we met on Friday 17 February, to discuss the Environmental Plan (EP) information shared with you to date for Scarborough and Nganghurra RTM. This is the email with further information for NAC to consider if they have any interests in the EMBA (Environment that may be affected) relative to the attached information sheets.

It would be greatly appreciated if you could please acknowledge receipt and confirm the opportunity to meet with the NAC board when they are next due to meet on 29 or 30 March. We welcome the opportunity to spend a whole day with the board on a different day if that works.

This email provides information on Woodside's decommissioning and drilling activities that we are seeking to consult with NAC about.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which Woodside is seeking NAC's feedback as soon as possible, Woodside is seeking NAC's feedback on these decommissioning and drilling activities by **17 March** 2023. The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

- Removal of the Nganhurra Riser Turret Mooring (RTM). Information about the RTM was
 previously emailed on 20 January. For ease of reference, the summary information is
 attached and the consultation information sheet for the RTM can be found at the link below.
 - o <u>consultation-information-sheet---nganhurra-operations-cessation-environment-plan-revision.pdf (woodside.com)</u>
- Stybarrow. This involves two work activities that are subject to separate environment plans;
 plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf</u> (woodside.com)
 - Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- Griffin decommissioning.
 - consultation-information-sheet---griffin-decommissioning-environment-plans.pdf (woodside.com)

Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment Plan (woodside.com)

In providing this information and requests for feedback, I acknowledge that we are working towards presenting to the NAC board at their next board meeting in March. Woodside would be most grateful for the opportunity to meet with NAC, at NAC's earliest convenience, and at a location suitable to NAC. Woodside would also be pleased to provide the resources necessary to hold this meeting and we look forward to receiving a budget for consideration. If there is anything else, we can do at this time to facilitate consultation about these planned work activities please let me know.

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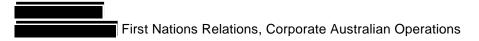
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Thank you, for consideration of these matters and work to progress these important consultations.

Please feel free to contact me on the details below if you require further information or assistance.

Regards



1.81.1 Email sent to Ngarluma Aboriginal Corporation (NAC) 15 September 2023

A second email this week from me regarding environment plans, that should be it for this week. Apologies also as I see and I doubled up on the previous email.

I have sent separately to as his email address was rejected by our system.

Further to mine (and project activities) correspondence earlier in the week about a number of Woodside's decommissioning and project activities, I am writing regarding three of Woodside's Scarborough activities that have been the subject of our consultations to date, particularly in relation to potential impacts to NAC's interests, functions or activities in the environment that may be affected (EMBA) by these activities.

These activities are covered under the following environment plans (EPs):

Scarborough Project Activities

- 1. Scarborough Seabed Intervention and Trunkline Installation
- 2. Scarborough Drilling and Completions
- 3. Scarborough Subsea Infrastructure Installation

I am writing to notify you of Woodside's planned commencement date of these activities, and to seek your confirmation in relation to the following matters on or before the dates set out in the tables below:

- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by these activities that have not yet been afforded the opportunity to provide information that may inform the management of the activities; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

Environment Plan Open for Feedback	Planned Activity Commencement	Please Provide Feedback By:
Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	28 Sep 2023
Scarborough Drilling and Completions	19 Oct 2023	28 Sep 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	28 Sep 2023

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I have attached the information relevant to each of these activities, and ask that you please distribute it to members or individuals who may be interested.

As with all of our activities, consultation remains ongoing. This means that we will take any feedback regarding the activities, or any other relevant information you may wish to provide, at any time during the activities and will assess this information using the mechanisms described in the EPs.

As you are aware, NOPSEMA has published a number of documents on consultation (please see <u>Document Hub | NOPSEMA</u>). For your convenience we have provided links to the following recent publications below:

- Brochure: Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- Guideline: Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- Policy: <u>Draft policy for managing gender-restricted information PL2098.pdf</u> (nopsema.gov.au).

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support their participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

We look forward to ongoing consultation with NAC and to progressing the various matters that have been the subject of our meetings and correspondence to date. As always, please let us know how we can support NAC to progress these matters and to participate in ongoing consultation with Woodside.

Kind Regards



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1.82 Email sent to Wirrawandi Aboriginal Corporation (WAC) (24 February 2023)

Good morning

I hope your Friday is going well.

I mentioned I would be sharing more information when we met on Tuesday 21 February, to discuss the Environmental Plan (EP) information shared with you to date for Scarborough and Nganghurra RTM. This is the email with further information for Wirrawandi to consider if they have any interests in the Environment that may be affected (EMBA) relative to the attached information sheets.

It would be greatly appreciated if you could please acknowledge receipt and confirm the opportunity to meet with the Wirrawandi board when they are next due to meet in Perth in March.

This email provides information on Woodside's decommissioning and drilling activities that we are seeking to consult with Wirrawandi about.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which Woodside is seeking Wirrawandi's feedback as soon as possible, Woodside is seeking Wirrawandi's feedback on these decommissioning and drilling activities by **17 March** 2023. The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

- Removal of the Nganhurra Riser Turret Mooring (RTM). Information about the RTM was
 previously emailed on 18 January. For ease of reference, the summary information is
 attached and the consultation information sheet for the RTM can be found at the link below.
 - o <u>consultation-information-sheet---nganhurra-operations-cessation-environment-plan-revision.pdf (woodside.com)</u>
- Stybarrow. This involves two work activities that are subject to separate environment plans; plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf (woodside.com)</u>
 - Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- Griffin decommissioning.
 - consultation-information-sheet---griffin-decommissioning-environment-plans.pdf (woodside.com)

Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment Plan (woodside.com)

In providing this information and requests for feedback, I acknowledge that we are working towards presenting to the Wirrawandi board at their next board meeting in March. Woodside would be most grateful for the opportunity to meet at Wirrawandi's earliest convenience, and at a location suitable to Wirrawandi. Woodside would also be pleased to provide the resources necessary to hold this meeting

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and we look forward to receiving a budget for consideration. If there is anything else, we can do at this time to facilitate consultation about these planned work activities please let me know.

Thank you, for consideration of these matters and work to progress these important consultations.

Please feel free to contact me on the details below if you require further information or assistance.

Kind regards



1.82.1 Email sent to Wirrawandi Aboriginal Corporation (WAC) (18 September 2023)



Apologies, the previous email sent through this afternoon, I neglected to include two other EP's, Scarborough Drilling & Completion and Scarborough Subsea Infrastructure Installation.

We have previously provided you information on Scarborough environment plans (EPs) seeking information on potential impacts to the interests, functions or activities that you may have in the environment that may be affected (EMBA) for each EP. This includes consultation in relation to:

- 1. Scarborough Seabed Intervention and Trunkline Installation EP
- 2. Scarborough Drilling and Completions EP
- 3. Scarborough Subsea Infrastructure Installation EP

Following on from EMAIL, Woodside is again writing to you to confirm:

- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

We have attached the information relevant to each of these activities and ask that you distribute it to members or individuals who may be interested.

The proposed commencement of activities under each of these EPs is included below. Please provide any relevant information prior to the date indicated. If no feedback is received relating to items a) and b) above by this time, Woodside will take this to mean that you do not wish to provide this information prior to the commencement of the activity.

Environment Plan Open for Feedback		Please Provide Feedback By:
Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	02 Oct 2023
Scarborough Drilling and Completions	19 Oct 2023	02 Oct 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	02 Oct 2023

Please note that we will also take any feedback regarding the above, or any other relevant information you may wish to provide, at any time during the activity and will assess this information using the mechanisms described in the environment plan.

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As you are aware, NOPSEMA has published a number of documents on consultation (please see Document Hub | NOPSEMA). For your convenience we have provided links to the following recent publications below:

- Brochure: Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- **Guideline:** Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- Policy: <u>Draft policy for managing gender-restricted information PL2098.pdf</u> (nopsema.gov.au).

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support your participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

Kind regards,



1.83 Email sent to Yindjibarndi Aboriginal Corporation (24 February 2023)

Hello

I understand you last spoke with on 25 January regarding the Environmental Plan (EP) information shared with YAC for the Scarborough project activity and Nganghurra RTM.

This email provides further information on Woodside's decommissioning and drilling activities that we are seeking to understand if YAC has any interests in the Environment that may be affected (EMBA) relative to the attached information sheets and if YAC would like us to consult further on these EPs.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which I understand YAC has verbally advised they have no interests, Woodside is also seeking YAC's feedback on these decommissioning and drilling activities by **17 March 2023**.

The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

- Stybarrow. This involves two work activities that are subject to separate environment plans; plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf</u> (woodside.com)

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- Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- Griffin decommissioning.
 - consultation-information-sheet---griffin-decommissioning-environment-plans.pdf (woodside.com)

Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - o <u>Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment</u> Plan (woodside.com)

Thank you for your time in considering these matters. We look forward to hearing from you.

Please feel free to contact me on the details below if you require further information or assistance.

Kind regards



1.84 Email sent to Robe River Kuruma Aboriginal Corporation (RRKAC) (24 February 2023)

Hello

I understand you met with on 31 January regarding the Environmental Plan (EP) information shared with Robe River Kuruma Aboriginal Corporation (RRKAC) for the Scarborough project activity and Nganghurra RTM and that this information was to be presented at the RRKAC Board meeting this week 21-22 February. advised we have a number of EPs we will reach out to RRKAC on.

This email provides further information on Woodside's decommissioning and drilling activities that we are seeking to understand if RRKAC has any interests in the Environment that may be affected (EMBA) relative to the attached information sheets and if RRKAC would like us to consult further on these EPs.

With the exception of removing the Nganhurra RTM and the Scarborough project, for which Woodside would appreciate feedback on as soon as possible, Woodside is also seeking RRKAC's feedback on these decommissioning and drilling activities by **17 March 2023**.

The plain English summary of each of these activities is attached, and I have provided a link to the more detailed consultation information sheets below. These activities are:

Decommissioning Activities:

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- Stybarrow. This involves two work activities that are subject to separate environment plans; plug and abandonment (P&A) of the wells and decommissioning the infrastructure.
 - o <u>consultation-information-sheet---stybarrow-plug-and-abandonment-environment-plan.pdf</u> (woodside.com)
 - Consultation Information Sheet Stybarrow Decommissioning Environment Plans (woodside.com)
- · Griffin decommissioning.
 - o <u>consultation-information-sheet---griffin-decommissioning-environment-plans.pdf</u> (woodside.com)

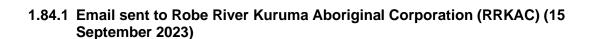
Drilling Activities:

- TPA03 Well Intervention.
 - Consultation Information Sheet TPA03 Well Intervention Environment Plan (woodside.com)
- WA-34-L Pyxis Drilling and Subsea Installation.
 - Consultation Information Sheet WA-34-L Pyxis Drilling and Subsea Installation Environment Plan (woodside.com)
- Julimar Appraisal Drilling.
 - o <u>Consultation Information Sheet Julimar Appraisal Drilling and Survey Environment</u> Plan (woodside.com)

Thank you for your time in considering these matters. We look forward to hearing from you.

Please feel free to contact me on the details below if you require further information or assistance.

Kind regards



Dear

We have previously consulted you on Scarborough environment plans (EPs) seeking information on potential impacts to the interests, functions or activities that you may have in the environment that may be affected (EMBA) for each EP. This includes consultation in relation to:

- 1. Scarborough Seabed Intervention and Trunkline Installation EP
- 2. Scarborough Drilling and Completions EP
- 3. Scarborough Subsea Infrastructure Installation EP

Following on from email, Woodside is again writing to you to confirm:

- a. if you are aware of any people, who in accordance with Indigenous tradition, may have spiritual and cultural connections to the environment that may be affected by the activity that have not yet been afforded the opportunity to provide information that may inform the management of the activity; and
- b. if there is any information you wish to provide on cultural features and/or heritage values.

We have attached the information relevant to each of these activities and ask that you distribute it to members or individuals who may be interested.

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The proposed commencement of activities under each of these EPs is included below. Please provide any relevant information prior to the date indicated. If no feedback is received relating to items a) and b) above by this time, Woodside will take this to mean that you do not wish to provide this information prior to the commencement of the activity.

Environment Plan Open for Feedback		Please Provide Feedback By:
Scarborough Seabed Intervention & Trunkline Installation	15 Oct 2023	28 Sep 2023
Scarborough Drilling and Completions	19 Oct 2023	28 Sep 2023
Scarborough Subsea Infrastructure Installation	17 Nov 2023	28 Sep 2023

Please note that we will also take any feedback regarding the above, or any other relevant information you may wish to provide, at any time during the activity and will assess this information using the mechanisms described in the environment plan.

As you are aware, NOPSEMA has published a number of documents on consultation (please see Document Hub | NOPSEMA). For your convenience we have provided links to the following recent publications below:

- **Brochure:** Consultation on offshore petroleum environment plans brochure.pdf (nopsema.gov.au)
- Guideline: Guideline: Consultation in the course of preparing an environment plan (nopsema.gov.au); and
- Policy: <u>Draft policy for managing gender-restricted information PL2098.pdf</u> (nopsema.gov.au).

As you will see from the Guideline (link above), the purpose of consultation is to ensure that authorities, persons or organisations which are potentially affected by activities are consulted and their input is considered in the development of the environment plans. Consultation gives the titleholder an opportunity to receive information that it might not otherwise receive from those affected by the proposed activity, and for the titleholder to refine or change the measures it proposes to address impacts and risks by taking into account the information received. This process is intended to improve the titleholder's ability to minimise environmental impacts and risks from the activity.

We also want to make you aware that gender-restricted or other culturally sensitive information is managed carefully. If you have gender-restricted or other culturally sensitive information you wish to share, please let us know and we can discuss how to you want it to be managed. If you would prefer to provide the information directly to NOPSEMA, please do so. The attached NOPSEMA "Policy for managing gender-restricted information" provides information on this.

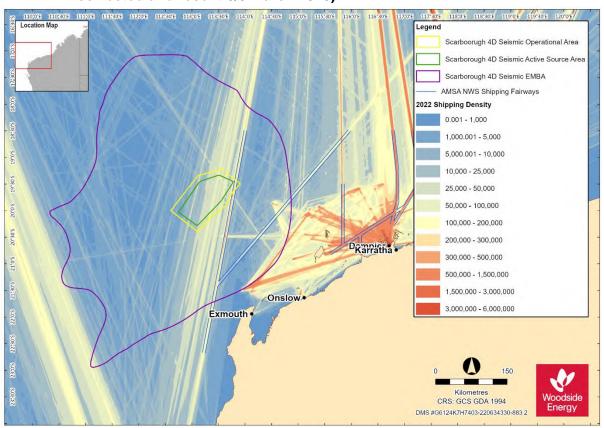
As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support your participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

Kind regards



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1.85 Updated Shipping lanes map sent to AHO and AMSA (28 February 2023, corrected and resent 8/9 March 2023)



1.86 Email sent to DNP (8 March 2023)

Dear DNP,

Thank you for your feedback on the proposed Scarborough EPs. We note and acknowledge the comments already provided by DNP previously on each of the relevant EPs and that DNP has no further comment or objections and claims. Copies of your previous responses have been received and have been addressed where relevant within each of the proposed EPs.

In response to your request for clarification on the OAs for each activity, please see the following information below:

Scarborough 4D B1 Marine Seismic Survey EP:

The Operational Area includes both the Active Source Area and a surrounding buffer for the purpose of vessel line turns and other vessel manoeuvres. The seismic source will not be discharged within this buffer.

Scarborough Seabed Intervention and Trunkline Installation EP:

The Operational Area defines the spatial boundary of the Petroleum Activities Program, as described, risk assessed and managed by this EP, including vessel related petroleum activities within the Operational Area. For the purposes of this EP, the Operational Area includes the following Project Areas:

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- Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline which allows for the movement and positioning of vessels and includes Spoil Ground 5A.
- Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.

WA-61-L Scarborough Drilling and Completions EP:

For the purposes of this EP, the following Operational Areas will apply:

- For a dynamically positioned (DP) MODU, the Operational Area encompasses a radius of 500 metre (m) from each well centre, in which drilling related petroleum activities will take place and will be managed under this EP.
- For a moored MODU, the Operational Area encompasses a radius of 4000 m from each well centre, in which drilling related petroleum activities will take place and will be managed under this EP. This increased Operational Area allows for temporary installation of moorings. Noting that the Operational Area will be limited to the western boundary of Permit Area WA-61-L.
- For the installation activities, the Operational Area encompasses a radius of 1500 m around subsea locations, in which subsea installation activities will take place and will be managed under this EP. The 1500 m (radius) Operational Area around subsea installation allows for the movement and positioning of large vessels.

The Operational Area for drilling activities includes a 500 m petroleum safety zone around the MODU to manage vessel movements. The 500 m petroleum safety zone is under the control of the MODU Person in Charge.

WA-61-L and WA-62-L Subsea Infrastructure Installation Environment Plan:

For the purposes of this EP, the following Operational Area will apply:

- For the gravimetry activities, the Operational Area encompasses a radius of 1000 m around location of the outermost concrete pads, in which gravimetry preparation and survey activities will take place and will be managed under this EP. The 1000 m (radius) Operational Area around subsea installation allows for the movement and positioning of vessels.
- For the subsea installation activities, the Operational Area encompasses a radius of 1500 m around location of subsea infrastructure, in which subsea installation activities will take place and will be managed under this EP. The 1500 m (radii) Operational Area around subsea installation allows for the movement and positioning of vessels.
- For the mooring pre-lay activities, the Operational Area encompasses a radius of 2000 m around future location of FPU, in which mooring pre-lay activities will take place and will be managed under this EP. The 2000 m (radius) Operational Area around future FPU location allows for moorings to be deployed and the movement and positioning of vessels.

Please let us know should you have any questions regarding the above or require further information relating to any of the Scarborough activities.

Kind Regards,

Woodside Feedback

1.87 Email sent to AMSA (8 March 2023)

Dear AMSA,

The Scarborough FPU shall be located in the Scarborough Field Petroleum Activity Area (PAA) in approximately 952 m of water (refer to coordinates in below table).

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Location and Water Depth of Scarborough FPU

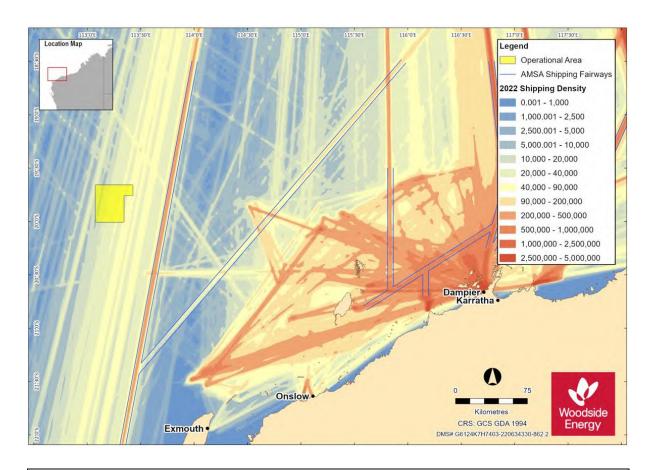
Water Depth (m below MSL)	Northing/ Latitude	Easting/ Longitude	Ref. Grid
952	7,792,300 m N	106.450 m E	MGA94 Grid 50K, 117°E
Cartesian: 19°55'33.7" South 113°14'29.8" East			

The FPU comprises a semi-submersible hull and integrated topsides with the following key components:

- Semi-submersible hull with integrated storage tanks, ballast and bilge systems;
- Risers, umbilicals and mooring system (20 mooring chains connected to suction piles on the seabed); and
- An integrated topsides supporting gas processing systems and equipment, flare systems, utilities, cranes, laydown and storage areas, Utility Building (UB), Living Quarters (LQ) and helideck.

AMSA has introduced a network of marine fairways across the NWMR off WA to reduce the risk of vessel collisions with offshore infrastructure. It is noted that none of these fairways intersect with the PAA; the nearest fairway is approximately 38 km east of the PAA (figure below). Vessel tracking data suggest the majority of shipping is concentrated to the east of the PAA.

Vessel density map for the PAA, derived from AMSA satellite tracking system data (vessels include cargo, LNG tanker, passenger vessels, support vessels, and others/unnamed vessels)



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The environment that may be affected (EMBA) is the largest spatial extent where the Petroleum Activities Program could potentially have an environmental consequence (direct or indirect impact). The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this Environment Plan (EP) is determined by a highly unlikely release of marine diesel to the environment as a result of vessel collision. The EMBA does not represent the extent of predicted impact of the highly unlikely marine diesel release. Rather, the EMBA represents the merged area of many possible paths a highly unlikely hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the entire EMBA will not be affected and the specific and minimal part of the EMBA that is affected will only be known at the time of the release.

In addition to the above responses, please find attached an updated Shipping Density map for the Scarborough Seismic EP showing the correct EMBA profile. Please disregard the previous version of this map provided on 28 February 2023.

Please let us know should you have any questions regarding the above or require further information relating to any of the Scarborough activities.

Kind Regards,

Woodside Feedback

1.88 Email sent to Ngarluma Yindjibarndi Foundation Limited – 15 September 2023

Hi

Emailing NYFL, similar to previous email sent through for Yindjibarndi Aboriginal Corporation.

We have previously provided you information on Scarborough environment plans (EPs) seeking information on potential impacts to the interests, functions or activities that you may have in the environment that may be affected (EMBA) for each EP. This includes consultation in relation to:

- 1. Scarborough Seabed Intervention and Trunkline Installation EP
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We have attached the information relevant to each of these activities and ask that you distribute it to members or individuals who may be interested.

The proposed commencement of activities under each of these EPs is included below. Please provide any relevant information prior to the date indicated. If no feedback is received relating to items a) and b) above by this time, Woodside will take this to mean that you do not wish to provide this information prior to the commencement of the activity.

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As you are aware, Woodside provides various forms of assistance to PBCs, Traditional Custodian groups or individuals to support your participation in consultation. Please contact me if you have any questions or wish to discuss further how you would like to provide feedback.

Kind regards,



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1.89 Newspaper advertisements - EP Notices - Oct 2022 & Jan 2023

EP Notices - The Australian, The West Australian, Pilbara News - 19 October 2022

The Australian - 19 October 2022



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The West Australian - 19 October 2022



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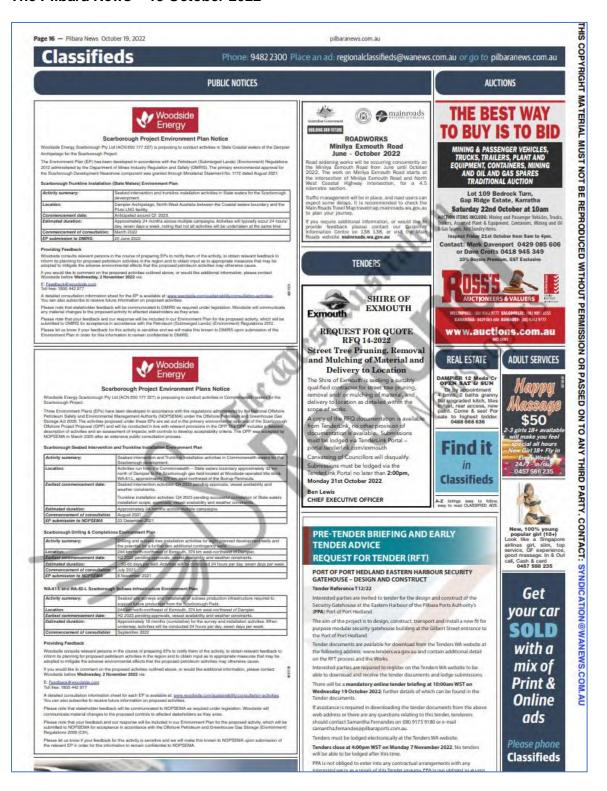
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The Pilbara News - 19 October 2022



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EP Notices - The Australian, The West Australian, Pilbara News, Midwest Times, North West Times, Geraldton Guardian - 18 January 2023

The Australian - 18 January 2023



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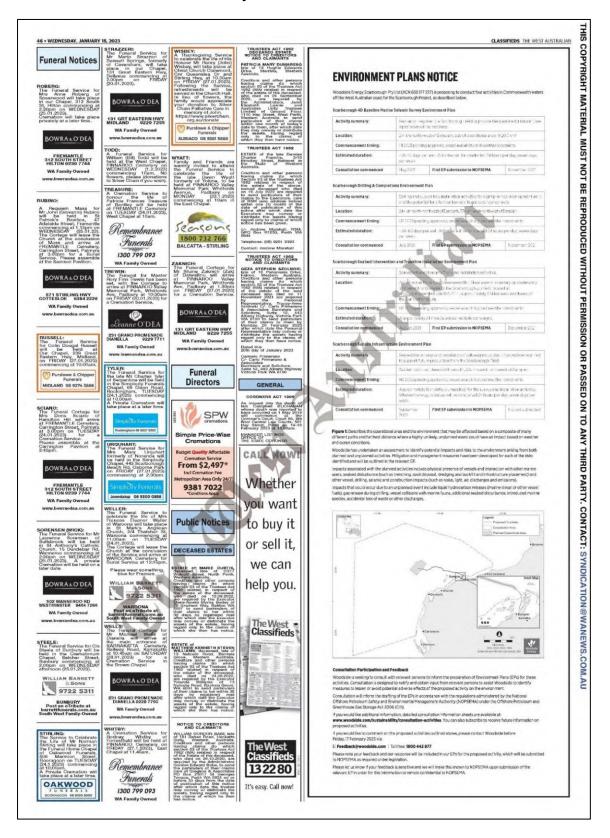
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The West Australian - 18 January 2023



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Pilbara News - 18 January 2023



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Midwest Times - 18 January 2023



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North West Telegraph - 18 January 2023



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Geraldton Guardian – 20 January 2023



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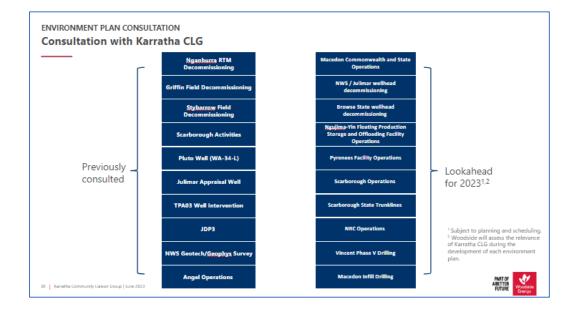
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1.90 Presentation to Karratha Community Liaison Group – 29 June 2023





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1.91 General Environment Plan social media campaign – Geraldton to Derby

Facebook Campaign - May 2023

A Facebook information campaign was targeted along the coastline from Geraldton to Derby to ensure it reached all communities adjacent to the EMBA. Geotargeting locations are distributed along the coast, with 80 km radiuses around towns, cities and shires. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

As at 9:00am Monday, 29 May 2023

Ad reach: 21,494 users Impressions: 139,972 views

Clicks through to Consultation Information page: 619 link clicks

Geotargeting locations:

- Broome (+80 km)
- Carnarvon (+80 km)
- Denham (+80 km)
- Exmouth (+80 km)
- Geraldton (+80 km)
- Onslow (+80 km)
- Port Hedland (+80 km)
- Karratha (+80 km)
- Latitude -17 Longitude 122.65 Dampier Peninsula (+80 km)
- Latitude -22.75 Longitude 114.10 Exmouth Gulf (+80 km)
- Latitude -18.96 Longitude 121.94 Gingerah (+80 km)
- Latitude -27.85 Longitude 114.25 Kalbarri National Park (+80 km)
- Latitude -21.32 Longitude 116.03 Mardie (+80 km)
- Pardoo (+80 km)
- Latitude -20.94 Longitude 117.83 Sherlock (+80 km)
- Latitude -26.96 Longitude 113.95 Tamala (+80 km)
- Latitude -19.88 Longitude 121.15 Telfer (+80 km)
- Latitude -17.52 Longitude 123.56 Willare (+80 km)
- Latitude -22.43 Longitude 114.93 Yannarie (+80 km)

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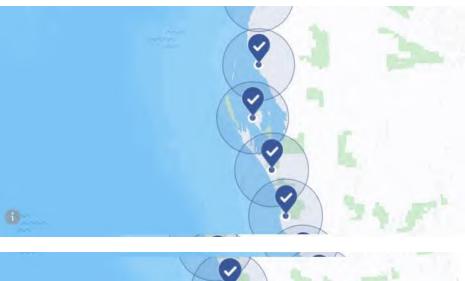


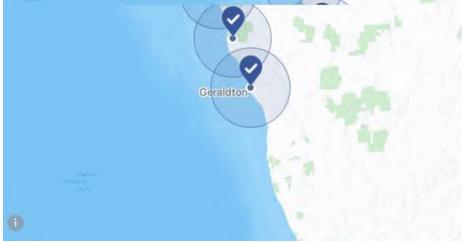
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Facebook Campaign – June 2023

A Facebook information campaign was targeted along the coastline from Geraldton to Derby to ensure it reached all communities adjacent to the EMBA. Geotargeting locations are distributed along the coast, with 80 km radiuses around towns, cities and shires. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

As at 11.30am 30 June 2023

Reach: 41,118

Impressions: 285,366 Link clicks: 1,236

Geotargeting locations:

- Broome (+80 km)
- Carnarvon (+80 km)
- Denham (+80 km)
- Exmouth (+80 km)

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- Geraldton (+80 km)
- Onslow (+80 km)
- Port Hedland (+80 km)
- Karratha (+80 km)
- Latitude -17 Longitude 122.65 Dampier Peninsula (+80 km)
- Latitude -22.75 Longitude 114.10 Exmouth Gulf (+80 km)
- Latitude -18.96 Longitude 121.94 Gingerah (+80 km)
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- Latitude -22.43 Longitude 114.93 Yannarie (+80 km)





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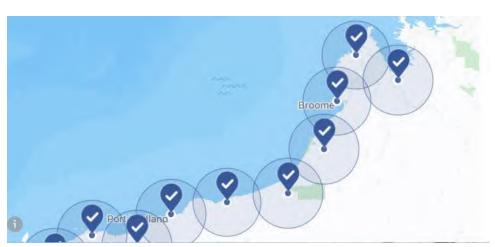
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1.92 Kimberley region community activities

1.92.1 Community information sessions – Broome, Derby and Kununurra – 12, 13 and 15 June 2023 respectively

Geotargeted social media campaign - June 2023

A Facebook information campaign was targeted in Kununurra, Broome and Derby to ensure it reached communities where the Consultation Information Sessions were planned to be held. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

As at 3:30pm, Thursday 15 June 2023

Kununurra:

Dates: 8 June 2023 - 14 June 2023

Total reach: 12,228

Total impressions: 14,486 **Geotargeting locations**:

- 80km radius around Kununurra
- 80km radius around Durack
- 80km radius around Warmun
- 80km radius around Wyndham

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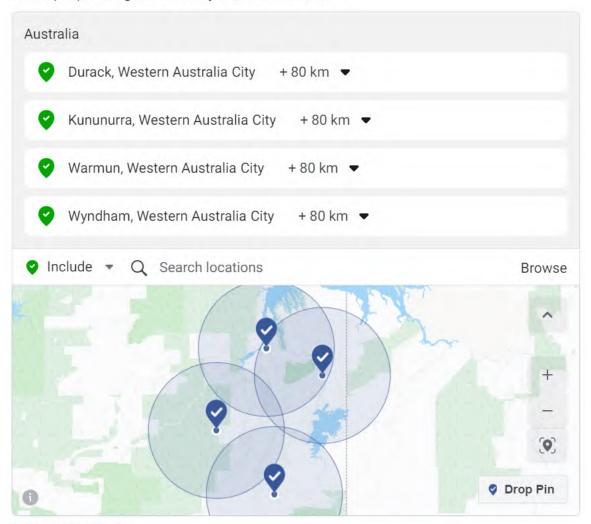
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* Locations

Reach people living in or recently in this location. 1



Add locations in bulk

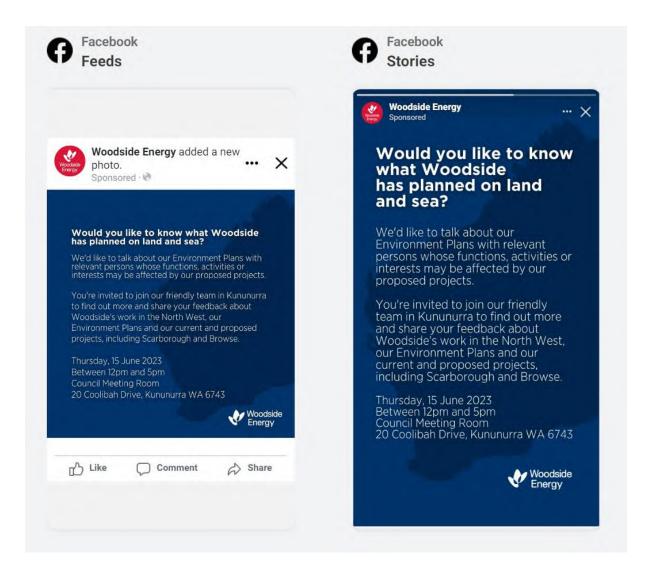
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Broome:

Dates: 8 June 2023 - 12 June 2023

Total reach: 19,220

Total impressions: 22,665 **Geotargeting locations**:

- 80km radius around Broome
- 80km radius around Dampier Peninsula
- 80km radius around area between Broome and Dampier Peninsula (Waterbank area)
- 80km radius around area south of Broome (Lagrange area)

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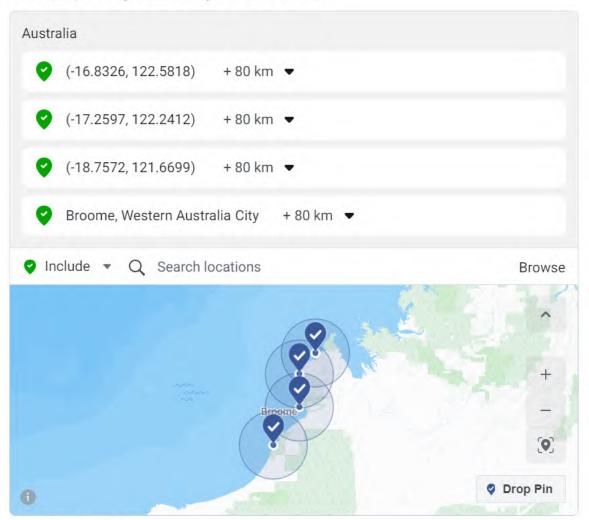
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* Locations

Reach people living in or recently in this location. 1



Add locations in bulk

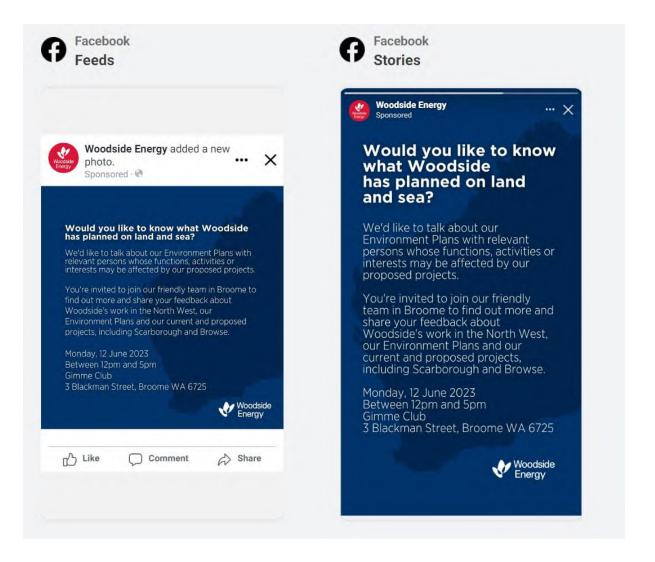
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Derby:

Dates: 8 June 2023 - 13 June 2023

Total reach: 4,758

Total impressions: 5,773 **Geotargeting locations**:

80km radius around Derby

80km radius around Kimbolton

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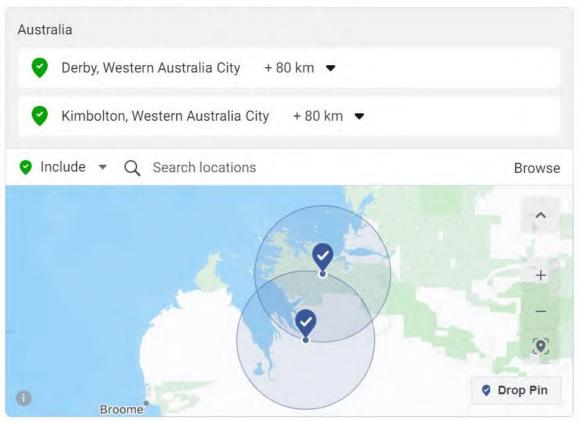
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* Locations

Reach people living in or recently in this location. 6



Add locations in bulk

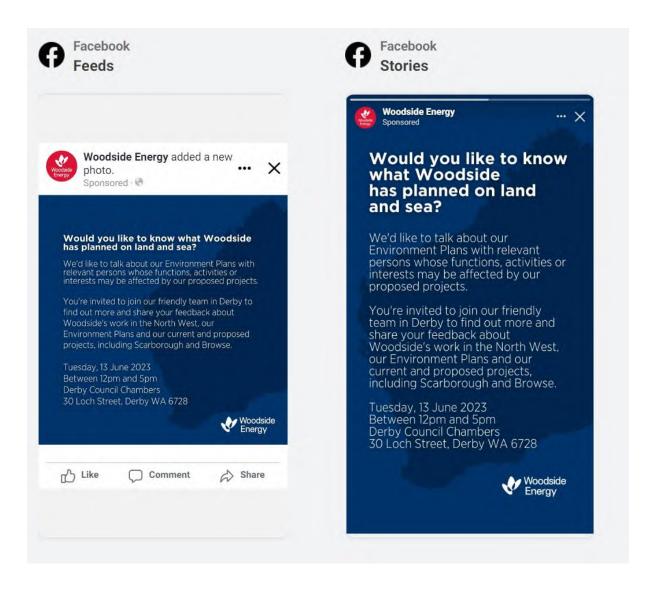
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Community information sessions - Newspaper advertisements

Broome Advertiser - 1 June 2023



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Broome Advertiser - 8 June 2023



(3 broomead.com.au





YOU'RE INVITED TO COME AND TALK WITH WOODSIDE ABOUT OUR ACTIVITIES.

Woodside is preparing Environment Plans and wants to discuss these with relevant persons, before submission to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).

Activities

- · Plug and Abandonment Decommissioning Activities for the Stybarrow field, located about 53 km north-west of Exmouth.
- · Pyxis Drilling and Subsea Installation, located about 170 km north west of Dampier.

We welcome Traditional Custodians and all community members to drop in, have a cuppa, find out more about these activities, and share your views.

We're keen to chat about all our operations, decommissioning activities and proposed projects such as Browse and Scarborough during these community information and feedback sessions.

Broome Monday 12 June 12pm-5pm Gimme Club 3 Blackman St,

Derby Tuesday 13 June Derby Council 12pm-5pm Chambers.

Kununurra Thursday 15 June 12pm-5pm Council Meeting Room 20 Coolibah Dr, 30 Loch St, Derby Kununurra

For more information: Feedback@woodside.com.au or phone toll free 1800 442 977 woodside.com



The new Broome Surf Life Saving Club is set to open to the public, with the main construction work of the \$5.5m project complete.

The club, due open to the public by late July, features a range of ney, features a range of ney

The club, due open to the public by late July, features a range of new facilities including new and increased storage areas, an education and function room, a new gym. bar and public toilets and showers. And the new facilities are already drawing in new members. Broome Surf Life Saving Club Bullding director Rob Aristef said he was excited to see the building near completion after working on the project for the better part of a deeads. "In 2016 we started to get "In 2016 we s



club to better service the club, but benefits the

showers. And the new facilities are already drawing in new members. Broome Surf Life Saving Club Building director Rob Aristed said he was excited to see the building near sompletion after working on the project for the bestier part of a deeade. The project off the ground as the old building had reached the end of its life. What we're trying to do is make the club fully sustainable so it will be a lot easier for us to replace equipment, attract more members and even expand our patrolling time. Broome Surf Life Saving Club manager Lauren Henderson said the new building would allow the documents of the surface of th

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Man jailed for robberies on hotels

KATYA MINNS

The accomplice of a gang who acted as a "lookout" for his fellow offenders at the Oaks Hotel, a few days after breaking into and stealing alcohol from the Roebuck Bay Hotel, has been sentenced to 31 months imprisonment.

onment.
Anton Caleb Joseph Galova faced Broome's District
Court on May 39 and pleaded
guilty to six counts of aggravated burglary and stealing.
The court was told the 24year-old was out drinking
with friends and family at a
residence before being convinced to accompany four
other men to break into the
Roebuck Bay Hotel at about

3am on March 18, 2022. Not Sam on March 18, 2022. Not wanting to be left behind, he went along with the grouphelping peel open a metal door to one of the bars within the hotel and stealing 15 bottles of wine.

Three days later, he and the group went to Oaks Hotel on Robinson Street about 2am with the intention a burget by hear for alcohol.

about 2am with the intention to burgle the bar for alcohol. Galova kept a lookout for security as his fellow offens used an axe to break the glass of the restaurant to gain entry into the bar, stealing bottles of liquor off the shelves.

An hour after leaving the

An hour after leaving the hotel, the group returned for more alcohol but security was already investigating

the scene and had called

the scene and police approached the men leaving the hotel on Guy Street, uncovering bottles of alcohol in their bags and immediately took them

into custody.

Defence lawyer Nick
Brookes said his client was Defence lawyer Nick Brookes said his client was "not a sophisticated individ-ual" and that Galova did not believe he was fully involved in the crime, hence his co-op-eration with police when providing sgainst the others involved. District Court Judge Michael Bowden sentenced Galova to 31 months jail, backdasted to March 21, 2022. He will be eligible for parole after serving 15% months.

after serving 15% months.



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Kimberley Echo – 1 June 2023





NEWS







Olderborleys do corp. to

The East Kimberley's biggest festival came to a big-close when hundreds gathered at Celebrity Tree Park for the Ord Valley Mutsur's Hoctson Power Party in the Park. The event— likely to become a staple of the Muster—was a true East Kimberley celbration, with performances, workshops, displays and fun for the family with local and guest ombridinment.

ocal and guest entertainment. Among the line-up was belly dancing, the East Kimberley Col-lege Primary School Choir, the Wild Brumby Line Dancers, the East Kimberley Community Choir, and the East Kimberley

College Band
Also featuring were bands
Cruise Control, Girls from Oz and the Band of the First Brigade, from Darwin.

from Darwin.

But argushly the most popular activity at this year's event was the Sorby Sthor Search, a new rendition of what was for decades called the Diamond Dig.

Like many year's before, participants their to three glant sand pits of the popular before the participants took to three glant sand pits of the popular was present the proposition of the

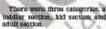


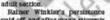






Rob & Cooper Cox. 13.







There were three categories, a be wen the top prize in the C toddler section, kid section and unduly section. Rainer Winkler's persistence paid off, and after many attempts Diamonds and valued at \$1200.

YOU'RE INVITED TO COME AND TALK WITH WOODSIDE ABOUT OUR ACTIVITIES

Woodside is preparing Environment Plans and wants to discuss these with relevant persons, before submission to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).

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We're keen to chat about all our operations, decommissioning activities and proposed projects such as Browse and Scarborough during these community information and feedback sessions.

Broome Monday 12 June 12pm-5pm

Gimme Club

3 Blackman St,

Derby

Kununurra

Tuesday 13 June 12pm-5pm **Derby Council** Chambers, 30 Loch St, Derby

Thursday 15 June 12pm-5pm Council Meeting Room 20 Coolibah Dr, Kununurra

For more information: Feedback@woodside.com.au or phone toll free 1800 442 977 woodside.com

The laughs just kept coming at Comedy in the Park show

CALLY DUPE

It was a night of side-split-ting laughter at Kununur-

ting laughter at Knunnurur's soft out Comedy in the
Park, with a huge crowd of
900 turning out to edjoy the
shighlights of the Beab Metais Ord Valley Muster.
The comedy line-up was
hand-picked by the frestival
organisers to ensure the
hughs were non-stop all
night, and included comedians Steph Tisdell, Chris Franklin, Bev Killick and Fabian Woods.

It was a global audience at this year's Comedy in the Park, with guests The Kim-

berley Etho spoke with hailing from across Australia and as far away as Oregon in the US.

ann as far away as Orogon in the US.

Hostod by the hilarious sali-confessed yobbo Franklin, the crowd roared with laughter listening to his mischievous anties and spic stories, tapping into everyone's inner bogan.

From his flanneleits shirt to his double plugger thougs, Franklin's "Hoganesque" style of comedy touched on the delicute issues of discovering he is one-sixteenth Aboriginal, boore and relationships.

"The audience was bril-

up here, the Ord Valley her has looked after us well Franklin said.

A proud Noongar Yaman man, Woods had the crown chuckling with funny talk

dances.

Bold, brassy and brutallhonest, Killick had everyelshedding tears of laughts
with her rough talking, seen
mama jokes about pilaise
loving joggy mothers any
crotiv beenage boys.



tention for some extra support and guidance? Whatever your small transmit would be \$1.00 better best position.

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Kimberley Small Business Support

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Kimberley Echo - 8 June 2023

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We're keen to chat about all our operations, decommissioning activities and proposed projects such as Browse and Scarborough during these community information and feedback sessions.

12pm-5pm

Gimme Club

Broome

3 Blackman St.

Monday 12 June

Derby

Tuesday 13 June 12pm-5pm Derby Council Chambers. 30 Loch St, Derby

Thursday 15 June 12pm-5pm Council Meeting Room 20 Coolibah Dr.

Kununurra

For more information: Feedback@woodside.com.au or phone toll free 1800 442 977

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FOR THE LATEST NEWS

kimberleyecho.com.au

NEWS Burney to blitz WA for Voice

DAN JERVIS-BARDY

DAN JERVIS-BARDY

Minister for Indigenous
Mustralians Linda Burney
will next month spend a full
week criss-crossing Wa to
build grassroots support for
the Voice to Parliament.

Ms Burney told an
audience in Perth on Monday the people of WA had a
"big job" in helping the
referendum across the line.
In a speech to the Australian Institute of Abortigan
and Torres Strait Islander
Studies summit, the intaister said she would travel
from "Kumunura to Ciarmont, from Perth to the Pilbara" to liston and talk to
voters about the Voice to
Parliament.
The rallving cry came as

shout the Voice to Parliament.
The tallying cry came as Canning MP Andrew Hastie Isunches a fundraising drive Vook in the same school as her, said: Vook in the same school as her, said



strength to keep prosect the case for a Voice to Pa

iso This referendum

"This referendum is once-in-a-lifetime opporumity," she said.
"We have within our great the chance to make a prive change that will last generations." While Ms Burney other Government mileters are upbeat about the ferendum, polls suggesterendum, polls suggesterendum in polls suggesterendum.

Yes campaign dire Dean Parkin said the "tening in the numbers" understandable after re heated political debate.

conversation been bogged in Canber been bogged in Camer politics, in a fair bit of new tivity there," Mr Parkin

"That phase is coming to an end and so that will all us to increase the focus and get some more cut through on that conversation that starting to grow significant ly in communities."



One in six Australians experience hearing loss.

Having a hearing test helps to detect the early signs of hearing loss, so we can keep our hearing healthy for longer.

Book a hearing check, talk to a health professional, or visit health.gov.au/hearing for more information.



Authorised by the Australian Government, Canberra

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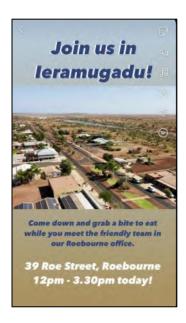
1.93 Pilbara region community activities

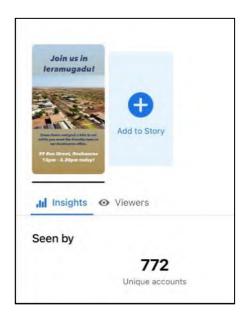
1.93.1 Community information sessions - Roebourne - 5, 10, 19, 24 May 2023

Woodside Facebook Stories - May 2023

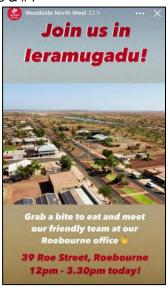
Facebook stories on Friday 5/5/2023 seen by 772 people (attachment #1 & #2) and another Facebook story on Wednesday 10/5/2023 seen by 1,400 people (attachment #3 & #4).

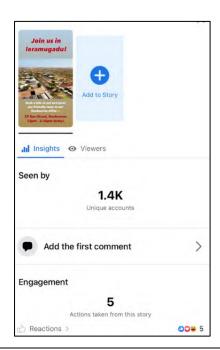
#1 & #2





#3 & #4





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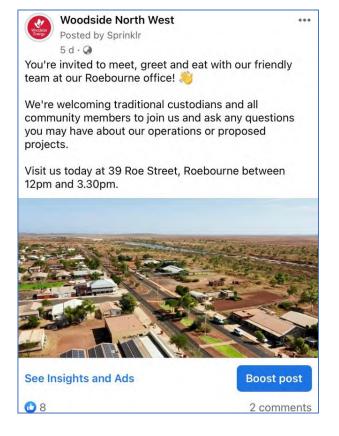
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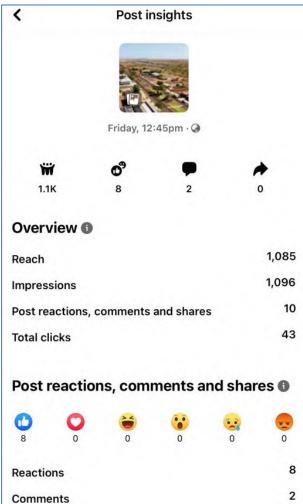
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Woodside Facebook Post





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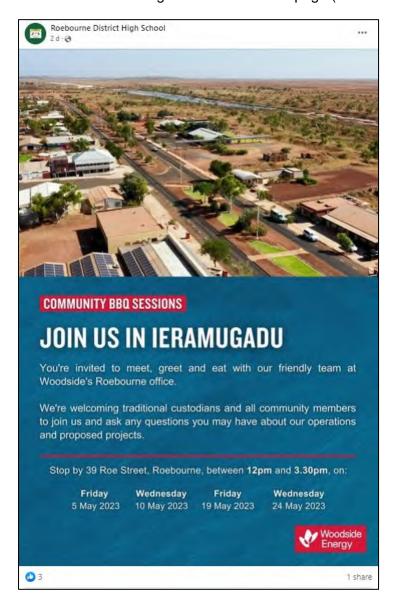
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Third-party Facebook posts

Roebourne District High School Facebook page (23/5/23 and 18/5/23)



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Email sent out via Roebourne Community Calendar – 29 April 2023

Posters and invitation extended via the Roebourne Community Calendar which has a very broad reach to all opt-in organisations including local TO groups, NFP, NGO, Government Agencies and other.



Posters for Community Information Sessions, Roebourne – 5, 10, 19 and 24 May 2023

The posters were physically posted up on community boards in Roebourne at:

- BP Service Station
- Post Office community board
- Community Resource Centre board at Foundation Food
- Centrelink office at NBAC

Posters dropped posters to:

- REFAP both Ganalili and work site offices
- Police
- Roebourne District High School Cultural classroom

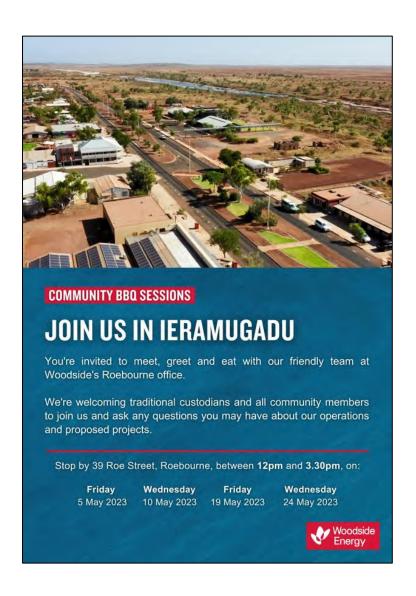
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1.93.2 Community information sessions - Roebourne - 22 June and 19 July

Posters for Community Information Session, Roebourne – 22 June 2023

On 22 June 2023, Woodside held a Consultation Information Session at its Roebourne office. The session was hosted by members from Woodside's Corporate Affairs and Environment teams and was open for all community members to receive information regarding Woodside's Environment Plans and proposed and planned activities.

Woodside distributed posters advertising the session locally, including:

- · Front door and front window of Woodside Roebourne office
- Online distribution via the Roebourne Community Calendar
- Roebourne Police Station provided with printed copy.

Woodside staff also visited the following offices promoting the session:

- Ngarluma and Yindjibarndi Foundation Ltd (NYFL)
- Ngarliyarndu Bindirri Aboriginal Corporation
- Yinjaai-Barni Art
- Foundation Foods.

Posters for Community Information Session, Roebourne – 19 July 2023

On 19 July 2023, Woodside held a Consultation Information Session at its Roebourne office. The session was hosted by members from Woodside's Corporate Affairs and Environment teams and was open for all community members to receive information regarding Woodside's Environment Plans and proposed and planned activities.

Woodside distributed posters advertising the session locally, including:

- Front door and front window of Woodside Roebourne office, with the open sign and fact sheets on display inside
- On the noticeboard at Roebourne Community Resource Centre (inside the Leramugadu Store (NYFL's Foundation Foods).
- Roebourne CRC
- Pilbara Community Legal Service
- NBAC
- WAPOL
- BP.

Woodside staff also visited the following offices to advise of the community information session and provide posters:

- Ngarluma and Yindjibarndi Foundation Ltd (NYFL)
- Yinjaai-Barni Art Group
- Yandi for Change
- NYFL
- WY Program
- Roebourne Library
- Yindjibarndi Ranger office
- Ashburton Aboriginal Corporation
- A poster was also put up at Cossack.

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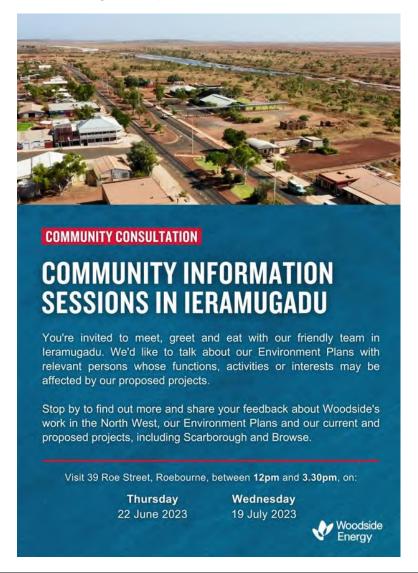
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The posters were physically posted up on community boards in Roebourne on 14 July 2023 at:

- Roebourne CRC
- Pilbara Community Legal Service
- NBAC
- WAPOL
- BP
- Cossack.

Posters were delivered to:

- Yinjaai-Barni Art Group
- Yandi for Change
- NYFL
- WY Program
- Roebourne Library
- Yindjibarndi Ranger office
- Ashburton Aboriginal Corporation.



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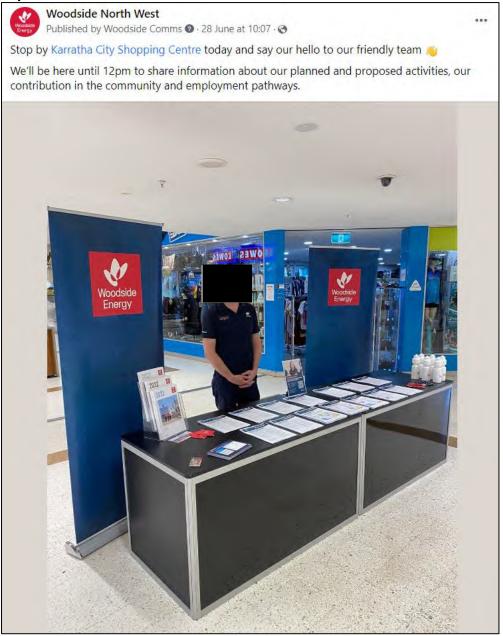
1.93.3 Community information sessions – Karratha – 28 and 29 June 2023

Karratha Community Information Session Facebook post – 28 June 2023

On 28 June 2023, Woodside posted a story on its Woodside North West Facebook account, sharing details of its shopping centre stand where Consultation Information Sheets regarding is planned and proposed activities were available, including the activities proposed under this EP.

Platform/channel: Woodside North West (Facebook)

Date: 28 June 2023 Reach: 1,464 viewers Impressions: 1,464 views



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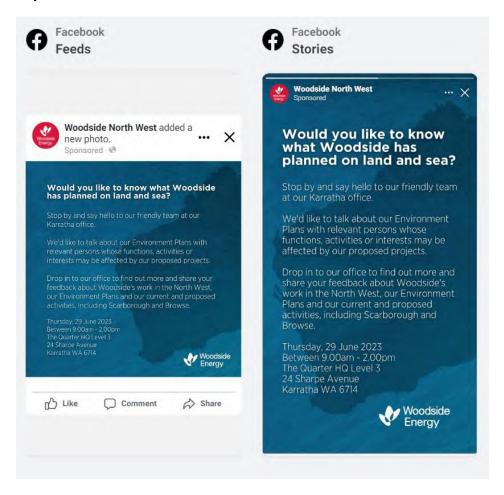
Karratha Community Information Session Facebook Post – 29 June 2023

On 29 June 2023, Woodside held a drop-in session at its Karratha town office. The drop-in session was hosted by one of Woodside's Senior Environmental Advisers and was open for all community members to receive information regarding Woodside's Environment Plans and proposed and planned activities.

Dates: 16 June 2023 - 29 June 2023

Geotargeting: 40km radius around Karratha

Reach: 19,240 viewers Impressions: 22,931 views



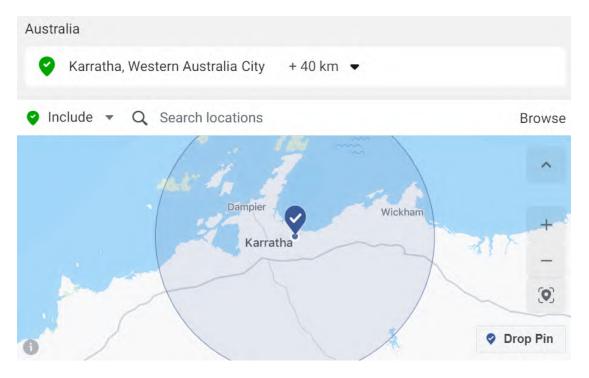
Geotargeting: 40 km radius around Karratha

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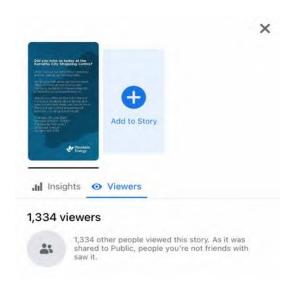
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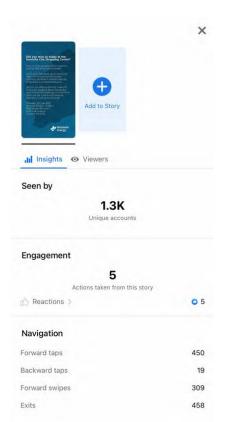
On 28 June 2023, Woodside posted a story on its Woodside North West Facebook account, sharing details of its drop-in session.

Reach: 1,366 viewers Impressions: 22,931 views



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Karratha Community Information Session - Newspaper advertisement

Pilbara News - 28 June 2023







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1.93.4 Karratha FeNaCING Festival – 5 and 6 August

- On 5 and 6 August 2023, Woodside had a stand at the annual FeNaCING Festival in Karratha.
- Members of Woodside's Corporate Affairs and Operations teams actively engaged with the community to discuss proposed EP activities.
- The stand included Consultation Information Sheets for a number of EPs including this EP.
- An EP consultation banner with QR code (linked to the Consultation Activities page on the Woodside website), a Scarborough Project banner, and Browse Project banners were displayed at Woodside's stand.
- Approximately 2,000 people visited the Woodside stand (based on the number of completed consultation forms and questionnaires).
- All community members were encouraged to provide their views on Woodside activities through the Woodside feedback form on the Woodside website, or to subscribe to Woodside updates. An iPad was available for stakeholders to do this on the spot.
- This consultation opportunity was promoted in the Pilbara News on 2 August 2023, and a story appeared on the Woodside North West Facebook page on 2 August 2023.
- Community discussions centred on:
 - a. Update of Woodside activities, and employment and contracting opportunities;
 - b. General Scarborough project update and operations. A Scarborough operations map and Floating Production Unit images were available. There was general community interest and support for the project. Discussions included:
 - Location of the fields, distance from shore and water depth
 - Length of the pipeline
 - Interest that the Field Production Unit would not be fixed to the seafloor and its size
 - Progress and development of Pluto Train 2, and role of Pluto Train 1
 - Scarborough commencement and field life;

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Story on the Woodside North West Facebook Page - 2 August 2023



Environment Plan Banner



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Pilbara News Advertisement – 2 August 2023



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1.93.5 Passion of the Pilbara Festival – Onslow – 17 August 2023

- Woodside had a stand at the Passion of the Pilbara festival in Onslow.
- Members of Woodside's Corporate Affairs team actively engaged with the community to discuss proposed EP activities.
- The stand included Consultation Information Sheets for a number of EPs including this EP.
- Approximately 100 people visited the Woodside stand.
- Community members were encouraged to provide their views on Woodside's activities through the Woodside feedback form on the Woodside website, or to subscribe to Woodside updates.
- This consultation opportunity was promoted in a story on the Woodside North West Facebook page on 17 August 2023.
- Community discussions centred on:
 - a. Update of Woodside activities and employment opportunities.
 - b. General Scarborough project update and operations. A Scarborough operations map and Floating Production Unit images were available. There was general community interest and support for the project. Discussions included:
 - Support for the project and dissatisfaction about protester activity against the project
 - Number of jobs during construction
 - Location of activities (noting activity was not off the coast of Onslow).
 - One individual asked in relation to the Scarborough Project what Woodside was doing to protect the environment.

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Passion of the Pilbara Facebook Post -17 August 2023



Woodside North West Facebook Page −17 August 2023



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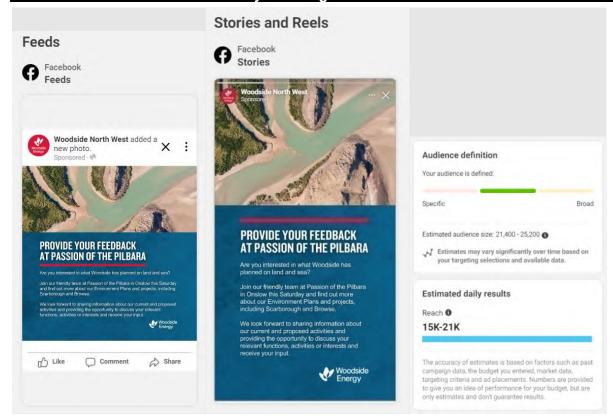
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Woodside Facebook Post and Story – 17 August 2023



Woodside Marquee



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Woodside Information Sheets



1.93.6 Community information sessions – Karratha, Port Hedland and Roebourne – 18, 19 and 20 September respectively

- During 18–20 September 2023, Woodside consulted the Karratha, Port Hedland and Roebourne communities on EP activities.
- Members of Woodside's Corporate Affairs, First Nations, Environment and Scarborough Project teams actively engaged the community to discuss proposed EPs, including the Scarborough and Browse projects.

18 September 2023

- Karratha Shopping Centre 8am–12pm
- Red Earth Arts Precinct 3–6pm
- Estimated number of people consulted: 20

19 September 2023

- Port Hedland, South Hedland Square 10am–5pm
- Estimated number of people consulted: 2

20 September 2023

Roebourne, Woodside Office 10am–4pm

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- Estimated number of people consulted: no attendance at the session due to Sorry Business and multiple Aboriginal corporation meetings which were unknown at the time of scheduling/planning engagements.
- These consultation opportunities were promoted in the Pilbara News on 13 September 2023, and via Facebook and Instagram social media campaigns from 6 to 16 September 2023.
- An EP consultation banner with a QR code linking to the Consultation Activities page on the Woodside website, a Scarborough Project banner, and Browse Project banners were displayed at Woodside's stand.
- Consultation on all Scarborough EPs occurred. Consultation Information Sheets on all activities were available including this EP, and Woodside's seismic 101 video was shown on an iPad to those interested in that activity. A Scarborough Project map was shown and discussed.
- All community members were encouraged to provide their views on Woodside's activities through the feedback form on the Woodside website or to subscribe to Woodside updates. An iPad was available for stakeholders to do this on the spot.
- Community discussions specific to the Scarborough Project centred on:
 - Opportunities for employment and business
 - Planned Scarborough seismic activities
 - A general Scarborough project update and operations. A Scarborough operations map and Floating Production Unit images were available. There was general community interest in the project. Discussions included:
 - General location (offshore and onshore);
 - Progress and development of Pluto Train 2, and role of Pluto Train 1
 - Project commencement
 - Final customers of the gas, described LNG and also the domestic gas supply to Western Australia
 - One individual in Karratha queried the impacts of seismic to the environment.
 Woodside's discuss impacts and mitigations
 - Two individuals subscribed to the Woodside website to receive consultation information
 - Kariyarra Aboriginal Corporation discussed business opportunities
 - Nyamal Aboriginal Corporation discussed training and job opportunities
 - Opportunities for engagement with Prescribed Body Corporate's (PBC's).

Pilbara News Advertisement – 13 September 2023



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Social Media - 6 to 16 September 2023

Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Karratha.

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.

Monday, 18 September 2023

Between 8.00am - 12.00pm Karratha Shopping Centre Sharpe Avenue Karratha

Between 3.00pm - 6.00pm Red Earth Arts Precinct 27 Welcome Road



Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Port Hedland.

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.

Tuesday, 19 September 2023 Between 10.00am - 5.00pm

Between 10.00am - 5.00pm South Hedland Square 9-31 Throssell Road South Hedland



Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Roebourne.

We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.

Wednesday, 20 September 2023

Between 10.00am - 4.00pm Woodside Office, Roebourne 39 Roe Street Roebourne



Social media reach:

Location	Reach
Karratha	22,095
Port Hedland	26, 487
Roebourne	22,134

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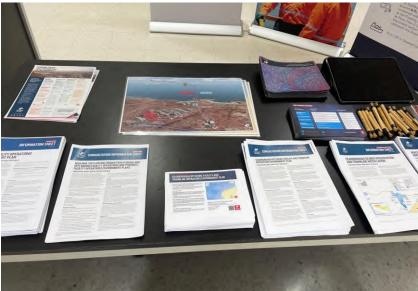
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Karratha Shopping Centre, Karratha – 18 September 2023





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Red Earth Arts Precinct, Karratha - 18 September 2023





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South Hedland Square, Port Hedland – 19 September 2023







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Woodside Office, Roebourne – 20 September 2023





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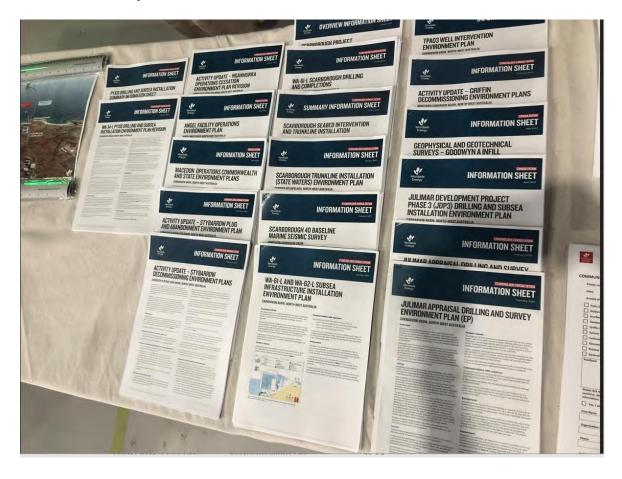
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1.94 Gascoyne region community activities

1.94.1 Community information session – Exmouth – 17 June 2023



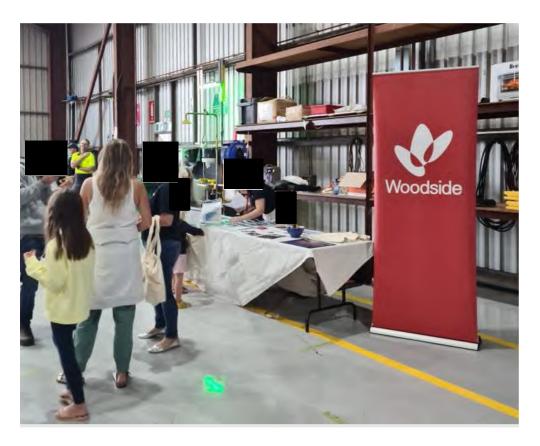
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- Woodside supported the PHI Helicopters community open day at the Exmouth Aerodrome on Saturday 17 June (10am – 1pm).
- Members of Woodside's Corporate Affairs, Environment and Scarborough Project teams actively engaged the community to discuss proposed EPs.
- Approximately 300 community people attended the event (adults and children).
- The majority of people wanted to understand Woodside's connection with PHI. There
 were also queries on contracting and job opportunities, including specifically for
 Scarborough activities.
- General questions from approximately five community members included:
 - Whales what Woodside is doing to protect whales, what the impact to whales might be
 - The Scarborough FPU and nature of this i.e. is it DP or moored to the seabed, was it like an FPSO
 - General interest questions on Scarborough project location, activities (i.e. trunkline installation, construction work at Pluto gas plant (within existing footprint), trunkline size and routing and why the location was chosen, field life and start up timing
 - Turtle nesting and lighting controls
 - Funding for whale shark research
- Many of the Consultation Information Sheets available were taken by attendees. Two attendees said they were taking the information sheets so they could see pipeline routes (for fishing opportunities), specifically mentioning permit numbers they were after.

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Exmouth Community Information Session – Geotargeted social media campaign – June 2023

A Facebook information campaign was targeted in Exmouth to ensure it reached communities where the Consultation Information Session was planned to be held. Geotargeting points were also included for spaces between towns, cities and shires to ensure no areas were missed – you'll see below there are latitude and longitude references for those locations.

Dates: 15 June 2023 – 17 June 2023

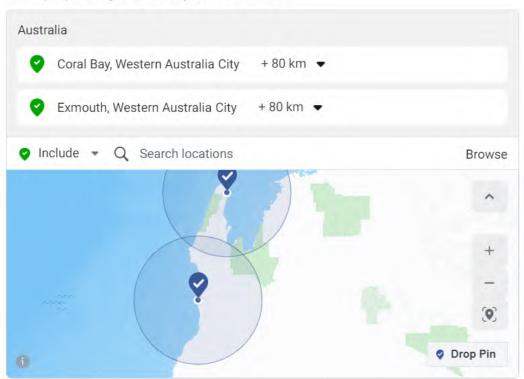
Platform: Facebook

Ad type/placement: Feed tile and story

Reach: 6,801 Impressions: 8,237 Geotargeting (see below)

80km radius around Exmouth80km radius around Coral Bay

Reach people living in or recently in this location. 1



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1.95 Email sent to INPEX Alpha (27 January 2023)

Dear Titleholder

Woodside has submitted Environment Plans (EPs) to undertake the following activities in Commonwealth waters for the Scarborough development:

- seabed intervention and trunkline installation activities for the section of the Trunkline in Commonwealth waters under the Scarborough Seabed Intervention and Trunkline Installation EP (SITI EP):
- drilling and subsea tree installation activities for eight planned development wells and the
 potential for a further two additional contingency wells under the WA-61-L Scarborough
 Drilling and Completions EP (D&C EP); and
- 4D baseline marine seismic survey (MSS) activities over the Scarborough and Jupiter field under the Scarborough 4D Baseline Marine Seismic Survey EP (Seismic EP).

Updated consultation Information Sheets are attached, which provide additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our <u>website</u>.

As we are inviting consultation with you on each of the EPs above, for ease of reference, we have attached the information in this one email. In an effort to simplify feedback, we have also included a feedback template (Appendix A) which you may wish to use to provide your feedback specific to the proposed EPs.

Woodside has previously submitted Revision 1 of the **SITI EP** to NOPSEMA which has been available on the NOPSEMA website since January 2022

(https://info.nopsema.gov.au/environment_plans/575/show_public). Revision 0 of the **D&C EP** has been available on the NOPSEMA website since November 2021

(https://info.nopsema.gov.au/environment_plans/565/show_public). Revision 0 of the **Seismic EP** has been available on the NOPSEMA website since 18 October 2021 (https://info.nopsema.gov.au/environment_plans/559/show_public).

Woodside is preparing to submit a further revision of the SITI EP, D&C EP and Seismic EP to NOPSEMA with recent changes. We confirm the activities, location and duration described in these revisions remain the same, with no material changes.

The SITI EP and D&C EP fall under the primary environmental approval of the <u>Scarborough Offshore Project Proposal</u> (OPP). The OPP includes a detailed description of activities, an assessment of the potential impacts and risks and includes management measures to demonstrate that the potential impacts and risks will be of an acceptable level. It was accepted by NOPSEMA in March 2020 after an extensive public consultation process.

More information on the Scarborough Project can be found here.

If you have feedback specific to each of the proposed activities described under the relevant EPs, please respond to Woodside at Feedback@woodside.com.au or 1800 442 977 by **26 February 2023**.

Activity:

Controlled Ref No: SA0006AD1401382459

	SITI EP	D&C EP	Seismic EP
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Uncontrolled when printed. Refer to electronic version for most up to date information.

Revision: 6

Summary:	Seabed intervention and trunkline installation activities in Commonwealth waters associated with the installation of a carbon steel pipeline (Trunkline) that runs approximately 430 km from the from the proposed offshore Scarborough Floating Production Unit (FPU) to the existing onshore Pluto LNG facility. This EP covers activities for the approximately 400 km section of the Trunkline in Commonwealth waters. A separate EP covers activities in State waters.	Drilling and Completions activities in Commonwealth waters, including drilling and subsea tree installation activities for eight planned development wells and the potential for a further two contingency wells. Woodside may need to intervene, workover or redrill the wells. Subsea inspection, monitoring, maintenance and subsea infrastructure repair activities may also be undertaken.	4D baseline seismic survey over the Scarborough and Jupiter fields. The proposed survey will be conducted over areas where seismic data has previously been acquired. The objective for the proposed activity is to acquire a new 3D seismic survey data that will provide the baseline for future 'time lapse' reservoir surveillance (or technically termed 4D baseline survey).
Location:	Activities run from the Scarborough FPU in WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, to the State waters boundary at the northern extent of the Dampier Archipelago.	Activities are located in Permit Area WA-61-L in Commonwealth waters, about 374 km west-northwest of Dampier, Western Australia. Approximate development well locations for the eight planned wells are provided in Table 2 of the attached D&C EP Consultation Information Sheet.	The seismic survey will cover the Scarborough and Jupiter fields within Commonwealth waters, located in the Exmouth Plateau, approximately 214 km north west of Exmouth, Western Australia.
Approx. Water Depth (m):	~ 32 m – 1400 m	~ 900 m – 955 m	~ 800 m – 1,150 m
Earliest commencement date:	Seabed intervention activities: Mid 2023 pending approvals, vessel availability and weather constraints. Trunkline installation activities: Q4 2023 pending successful completion approvals, vessel availability and weather constraints.	Activities planned to commence in H2 2023 pending approvals, vessel availability and weather constraints.	Activities planned to commence in H1 2023 pending approvals, vessel availability and weather constraints.
Estimated duration:	~24 months across multiple campaigns	~50 – 60 days per well	~55 – 70 days

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Distance from Operational Area to nearest town	The closest Commonwealth section of the trunkline on the State waters boundary is~32 km north-west of Dampier. • The trunkline corridor	~244 km north-northwest of Exmouth, 374 km west-northwest of Dampier.	~214 km north-west of Exmouth. • ~46 km north of Gascoyne
Distance from Operational Area to nearest marine park	runs through the Montebello Marine Park – Multiple Use Zone (Cwth), close to the northern boundary Offshore borrow ground located to the north of the Dampier Marine Park Habitat Protection Zone	Gascoyne Marine Park (Cwlth) • ~206 km north-west of Montebello Marine Park (Cwlth) • ~208 km north-northwest of Ningaloo Marine Park (Cwlth)	Marine Park Multiple Use Zone
Operational Area and Exclusion Zones	Temporary 500 m exclusion zones will apply around applicable seabed intervention and the Trunkline installation vessels. The Operational Areas are: • Trunkline Project Area: The proposed trunkline from around KP 32 (Commonwealth – State Boundary) to KP 435 and 1.5 km either side of the proposed trunkline centreline. • Offshore Borrow Ground Project Area: Offshore Borrow Ground located in Commonwealth waters.	A petroleum safety zone of 500 m will be in place around the MODU and installation vessel for the duration of activities. The Operational Areas are: • DP MODU/drillship – 500 m radius from each well centre • Moored MODU – 4,000 m radius from each well centre. • Installation vessel – 1,500 m radius around subsea locations	 Three nautical mile radius safe navigation area around the seismic vessel, streamers and tail buoys during seismic operations Marine users are requested to avoid this area during the survey to ensure the safety of the seismic vessel and third-party vessels Refer to Table 3 of the attached Seismic EP Consultation Information Sheet for detailed survey location points
Vessels:	Seabed intervention: • Trailing suction hopper dredge • Offshore construction vessel • Rock Installation Vessel • Survey vessels • Support vessels • Fuel bunkering vessels Trunkline installation: • Pipelay Vessel multijoint operation	 Installation vessels for installing the subsea infrastructure Light well intervention vessel as an option for well intervention, subsea hardware installation or contingent activities Support vessels including installation vessel(s), anchor handling vessel(s) and general supply/support vessels 	 A purpose-built seismic vessel One support vessel A potential chase vessel, and An additional spotter vessel (May to June)

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Shallow Water Lay	
Barge	
Anchor handling	
vessel/tug	
Pipe supply vessels	
Offshore construction	
vessel	
Survey vessels	
Fuel bunkering vessels	

Feedback:

If you have any issues or concerns with these activities, or any other issues relevant to this location, please respond to Woodside at:

Feedback@woodside.com.au or 1800 442 977.

Your feedback and our response will be included in our Environment Plan which will be submitted to submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth).

Please let us know if your feedback for any of the activities proposed under an Environment Plan is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan to ensure this information remains confidential to NOPSEMA.

Please provide your views by 26 February 2023.

Regards,

APPENDIX A

FEEDBACK	SITI EP	D&C EP	Seismic EP

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APPENDIX G. DEPARTMENT OF ABORIGINAL AFFAIRS HERITAGE SEARCH RESULTS

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Aboriginal Heritage Inquiry System

List of Registered Aboriginal Sites

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Search Criteria

No Registered Aboriginal Sites in Custom search area - Polygon - 114.711346061272°E, 20.8366319386942°S (GDA94) : 113.887371451897°E, 21.6557914540822°S (GDA94) : 113.392986686272°E, 22.2569669067452°S (GDA94) : 112.821697623772°E, 22.9163008856403°S (GDA94) : 113.019451530022°E, 21.0213387070791°S (GDA94) : 114.711346061272°E, 20.8366319386942°S (GDA94)

Disclaimer

The Aboriginal Heritage Act 1972 preserves all Aboriginal sites in Western Australia whether or not they are registered. Aboriginal sites exist that are not recorded on the Register of Aboriginal Sites, and some registered sites may no longer exist.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you email the details to the Department at AboriginalHeritage@dplh.wa.gov.au and we will make every effort to rectify it as soon as possible.

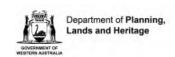
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Coordinate Accuracy

Coordinates (Easting/Northing metres) are based on the GDA 94 Datum. Accuracy is shown as a code in brackets following the coordinates.

Identifier: 576436



Aboriginal Heritage Inquiry System

List of Registered Aboriginal Sites

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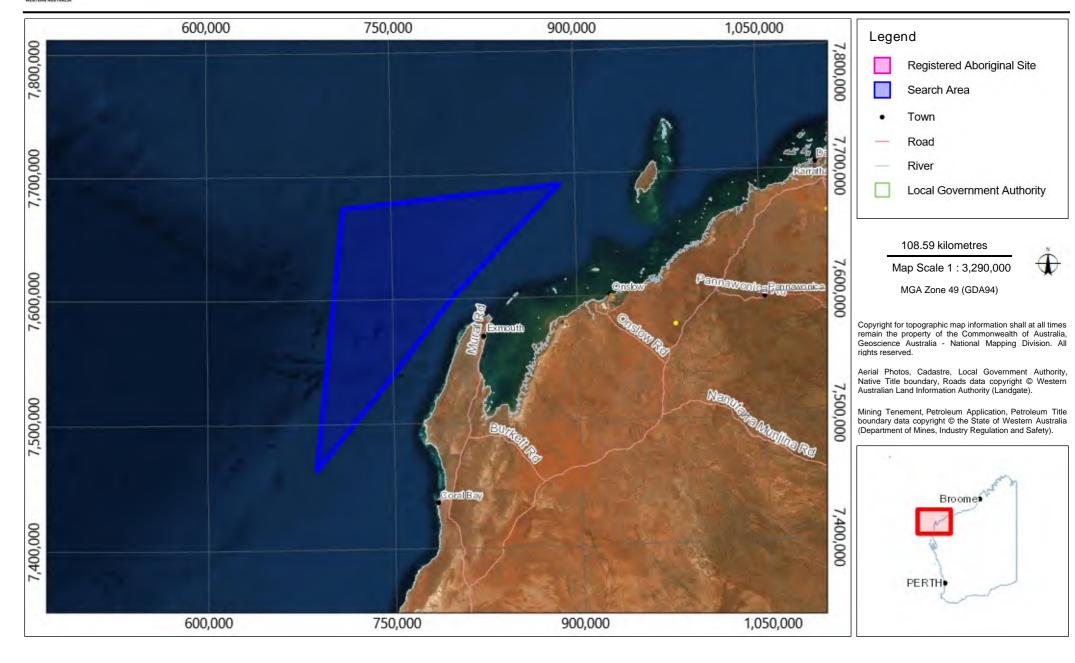
Identifier: 576436

Aboriginal Heritage Inquiry System

Map of Registered Aboriginal Sites

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Identifier: 576436



APPENDIX H. OIL POLLUTION FIRST STRIKE PLAN

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Scarborough Drilling and Completions Oil Pollution First Strike Plan

Corporate HSE Hydrocarbon Spill Preparedness

October 2023 Revision 0c

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SCARBOROUGH DRILLING & COMPLETIONS OIL POLLUTION FIRST STRIKE PLAN

SPILL FROM
FACILITY INCLUDING
SUBSEA
INFRASTRUCTURE

LEVEL 11

CONTROL AGENCY:

INCIDENT CONTROLLER (IC):

LEVEL 2 & 3

CONTROL AGENCY:

INCIDENT CONTROLLER:

WOODSIDE

Person In Charge (PIC) with support from Onshore Team

Leader (OTL)

WOODSIDE

DUTY MANAGER

Corporate Incident Management Team (CIMT)

SPILL FROM FACILITY ENTERING STATE WATERS

LEVEL 1

CONTROL AGENCY:

INCIDENT CONTROLLER:

LEVEL 2 & 3

CONTROL AGENCY:

INCIDENT CONTROLLER:

WOODSIDE

CIMT DUTY MANAGER

Department of Transport (DoT)

DoT IC

SPILL FROM VESSEL

LEVEL 1

CONTROL AGENCY:

INCIDENT CONTROLLER:

AMSA

VESSEL MASTER (with

response assistance from

Woodside)

LEVEL 2 & 3

CONTROL AGENCY:

INCIDENT CONTROLLER:

Australian Marine Safety Authority (AMSA)

AMSA (with response assistance from Woodside)

¹ See Table A - 1 below for a guidance to incident characteristics of Levels 1 to 3

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Guidance to Oil Spill Incident Levels

The most significant characteristic of the below guidance should be considered when determining level or escalation potential.

Table A - 1: Guidance to the characteristics of incident Levels 1 to 3

Characteristic	Level 1 Indicators	Level 2 Indicators	Level 3 Indicators
General Description	Generally able to be resolved within 24-48 hours.	Generally a response is required beyond 48 hours.	Response may extend beyond weeks.
Woodside Emergency Management (EM)/Crisis Management Team (CMT) Activation	Onsite Incident Controller (IC) activated. Use of CIMT support may be required.	Handover of Control from Onsite IC Corporate Incident Management Team (CIMT) Duty Manager (DM) in Peth.	Includes Perth based CMT activation.
Number of Agencies	First-response agency and Incident Management Team (IMT).	Multi-agency response.	Agencies from across government and industry.
Environment	Isolated impacts or with natural recovery expected within weeks.	Significant impacts and recovery may take months.	Significant area and recovery may take months to years. Remediation required.
Economy	Business level disruption (i.e. Woodside).	Business failure or 'Channel' impacts.	Disruption to a sector.
Public Affairs	Local and regional media coverage (WA).	National media coverage.	International media coverage.

For guidance on credible spill scenarios and hydrocarbon characteristics refer to Appendix A

For Spills Entering State Waters

In the event of a spill where Woodside is the responsible party and the spill may impact State waters/shorelines, Woodside will notify the Western Australian Department of Transport (DoT). The Director General of DoT is the Hazard Management Agency (HMA) for Western Australian waters.

If the spill impacts State waters/ shorelines and is a Level 1, Woodside will remain the Control Agency. If the spill is a Level 2 or 3 then DoT will become the Control Agency/ HMA for the response in State waters/shorelines only. DoT will appoint an Incident Controller and form a separate Incident Management Team to manage the State waters/shorelines response only. The coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State waters/shorelines is shown in APPENDIX E – Coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State Waters/Shorelines.

Initially Woodside will be required to make available an appropriate number of suitably qualified persons to work in the DoT IMT (see <u>APPENDIX G</u>). DoT's role as the Controlling Agency/ HMA for Level 2 and 3 spills in State waters/shorelines does not negate the requirement for Woodside to have appropriate plans and resources in place to adequately respond to a Marine Hydrocarbon Spill incident in State waters/shorelines or to commence the initial response actions to a spill prior to DoT establishing incident control in line with DoT Offshore Petroleum Industry Guidance Note - Marine Oil Pollution: Response and Consultation Arrangements (July 2020). Cost recovery arrangements for offshore marine pollution incidents (MOP) are in accordance with Section 9 of the Guidance Note:

https://www.transport.wa.gov.au/mediaFiles/marine/MAC_P_Westplan_MOP_OffshorePetroleumIn_dGuidance.pdf

Woodside's Incident Management Structure for a Hydrocarbon Spill, including Woodside Liaison Officer's command structure within DoT can be seen at APPENDIX F.

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Response Process Overview

Use the below to determine actions required and which parts of this plan are relevant to the incident. For guidance on credible scenarios and hydrocarbon characteristics, refer to Notify the Woodside Communication Centre (WCC) on: CIDENTS Incident Controller or delegate to make relevant notifications in Table 1-1 of this Oil Pollution First Strike **FACILITY INCIDENT** VESSEL INCIDENT Upon agreement with AMSA: Coordinate pre-Coordinate pre-identified tactics in Table 2-1 of this Oil Pollution First Strike Plan. identified tactics in Table 2-1 of this Oil Pollution Remember to download each Operational Plan. First Strike Plan. Remember to download each Operational Plan. If the spill escalates such that the site cannot manage the incident, inform the WCC on and escalate to a level 2/3 incident. **FACILITY INCIDENT** VESSEL INCIDENT Handover control to AMSA and stand up CIMT to Handover control to CIMT. assist. Commence quick revalidation of the recommended If requested by AMSA: strategies on Table 3-1 taking into consideration Commence quick revalidation of the recommended seasonal sensitivities and current situational strategies on Table 3-1 taking into consideration awareness. seasonal sensitivities and current situational awareness. Commence validated strategies. Commence validated strategies. Create an Incident Action Plan (IAP) for all ongoing If requested by AMSA: operational periods. Create an IAP for all ongoing operational periods. The content of the IAP should reflect the The content of the IAP should reflect the selected response strategies based on current selected response strategies based on current situational awareness. situational awareness. For the full detailed pre-operational Net For the full detailed pre-operational NEBA see here Environmental Benefit Analysis (NEBA) see here or or Appendix A of the OSPRMA Appendix A of the OSPRMA

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1. NOTIFICATIONS (ALL LEVELS)

The Incident Controller or delegate must ensure the below notifications (Table 1-1) are completed within the designated timeframes.

For other environmental notifications required refer to the Scarborough Drilling and Completions Environmental Plan.

Table 1-1: Immediate Notifications

Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/ Template	Mark Complete (✓)
Notifications to be (For spills from a		VELS of spill ng notifications mu	st be undertaker	n by a WEL repres	sentative).		
Immediately	Vessel Master	Woodside Communication Centre (WCC)	Duty Manager		Verbally notify WCC of event and estimated volume and hydrocarbon type.	Verbal	
Within 2 hours	Woodside Site Rep (WSR)	National Offshore Petroleum Safety Environmental Management Authority	Incident notification office	notification	Verbally notify NOPSEMA for spills >80L. Record notification using Initial Verbal Notification Form or equivalent and send to NOPSEMA as soon as practicable (cc to NOPTA and DMIRS).		
Within 3 days	WSR	(NOPSEMA ¹)			Provide a written NOPSEMA Incident Report Form as soon as practicable (no later than 3 days after notification) (cc to NOPTA and DMIRS) NOPSEMA: DMIRS:		
As soon as practicable	WSR	Woodside	Environment Duty Manager	As per roster	Verbally notify Duty Environment of event and seek advice on relevant performance standards from EP	Verbal	

¹ Notification to NOPSEMA must be from a Woodside Representative.

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Notification timing Within 2 hours of becoming aware of a marine oil pollution incident (MOP) that occurs in or may impact State waters	Responsibility CIMT DM or Delegate	Authority/ Company WA Department of Transport	DoT Maritime Environmental Emergency Response Unit (MEER) Duty Officer	Contact Number	Instruction Verbally notify DoT MEER Duty Officer that a spill has occurred and, if required, request use of equipment stored in the Karratha supply shed. Follow up with a written POLREP as soon as practicable following verbal notification. Additionally DoT to be notified if spill is likely to	Form/ Template	Mark Complete (√)
As soon as practicable if there is potential for oiled wildlife or the spill is expected to contact land or waters managed by WA Department of Biodiversity, Conservation and Attractions	CIMT DM or Delegate	WA Department of Biodiversity, Conservation and Attractions (DBCA)	Duty Officer		extend into WA State waters. Request DoT to provide Liaison to WEL IMT. Phone call notification	Verbal	
As soon as practicable	CIMT DM or Delegate	Department of Climate Change, Energy, the Environment and Water (DCCEEW) Director of National Parks	Marine Park Compliance Duty Officer		The Marine Park Compliance Duty Officer is notified in the event of oil pollution within a marine park, or where an oil spill response action must be taken within a marine park, so far as reasonably practicable, prior to response action being taken. This notification should include: • titleholder details • time and location of the incident • proposed response arrangements and locations as per the OPEP • contact details for the response coordinator • confirmation of access to relevant monitoring and evaluation reports when available.	Verbal	

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Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/ Template	Mark Complete (✓)
As soon as practicable	Public Information	Relevant persons/ organisations	To be determined	To be determined	Should it be identified that additional persons such as, but not limited to, commercial fishers or tourism operators may be affected, Woodside would, at the relevant time, engage with these parties as appropriate and in alignment with the Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) for Scarborough Drilling and Completions. Relevant persons/ organisations will be reassessed throughout the response period.	Verbal initially	
As soon as practicable	Public Information	Relevant cultural authorities	To be determined	To be determined	Should it be identified that relevant cultural authorities may be affected, Woodside would, at the relevant time, engage with these parties as appropriate and in alignment with the Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) for Scarborough Drilling and Completions. Relevant cultural authorities will be re-assessed throughout the response period.	Verbal initially	
Additional notifica	tions to be made	ONLY if spill is from	n a vessel				
Without delay as per protection of the Sea Act, part II, section 11(1)	Vessel Master	Australian Maritime Safety Authority (AMSA)	Response Coordination Centre (RCC)		Verbally notify AMSA RCC of the hydrocarbon spill. Follow up with a written Marine Pollution Report (POLREP) as soon as practicable following verbal notification.		
ADDITIONAL LEVI	EL 2/3 NOTIFICAT	IONS					
As soon as practicable	CIMT DM or Delegate	AMOSC	AMOSC Duty Manager		Notify AMOSC that a spill has occurred and follow- up with an email from CIMT Leader/ CIMT Deputy Leader/ IMT IC/ CMT Adviser/ CMT Leader to formally activate AMOSC.		
					Determine what resources are required consistent with the AMOSPlan and detail in a Service Contract that will be sent to Woodside from AMOSC upon activation.		

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Notification timing	Responsibility	Authority/ Company	Name	Contact Number	Instruction	Form/ Template	Mark Complete (✓)
As soon as practicable	CIMT DM or Delegate	Oil Spill Response Limited (OSRL)	OSRL Duty Manager		Contact OSRL duty manager and request assistance from technical advisor in Perth. Send the completed notification form to OSRL as soon as practicable. For mobilisation of resources, send the Mobilisation Form to OSRL as soon as practicable. The mobilisation form requires to be signed by a nominated callout authority from Woodside.	Notification: Mobilisation:	
As soon as practicable	CIMT DM or Delegate	Marine Spill Response Corporation (MSRC)	MSRC Response Manager		Activate the contract with MSRC (in full) for the provision of up to 30 personnel depending on what skills are required. Please note that provision of these personnel from MSRC are on a best endeavours basis and are not guaranteed.	Verbal	

2. LEVEL 1 RESPONSE

2.1 Mobilisation of Response Techniques

For the relevant hydrocarbon type, undertake quick revalidation of the recommended techniques and pre-identified tactics indicated with a 'Yes' in **Table 2-1**. Undertake all validated pre-identified tactics immediately. These tactics should be carried out using the associated plan identified under **Table 2-1** Operational Plan column.

All response techniques and pre-identified tactics have been identified from the pre-operational Net Environmental Benefits Analysis (NEBA) presented in the Scarborough Drilling and Completions Environment Plan Appendix D (Woodside's Oil Spill Preparedness and Response Mitigation Assessment).

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Table 2-1: Level 1 Response Summary

Response	Hydrocarbo	on Type		_	ALARP	Complete	Link to Operational Plans
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	√	for notification numbers and actions
Monitor and evaluate – tracking buoy (OM02)	Yes	Yes N/A	If a vessel is on location, consider the need to deploy the oil spill tracking buoy. If no vessel is on location, consider the need to mobilise oil spill tracking buoys from the King Bay Supply Base (KBSB) Stockpile. If a surface sheen is visible from the facility, deploy	Operations	DAY 1: Tracking buoy deployed within two hours.		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan.
			the satellite tracking buoy within two hours.				Deploy tracking buoy in accordance with APPENDIX D – Tracking buoy deployment instructions.
Please con	sider instruct	ing the C	MT DM to activate or implement any of the following Questions of Spill Assessment' identified in Appe				ill assist in answering the '7
Monitor and evaluate – predictive modelling (OM01)	Yes	N/A	Marine Diesel: Undertake initial modelling using the Rapid assessment oil spill tool (Woodside Maps) and weathering fate analysis using ADIOS (or refer to the hydrocarbon information in Appendix A).	Intelligence or Environment	DAY 1: Marine Diesel: Initial modelling within six hours using the Rapid Assessment Tool.		Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of the Operational Monitoring Operational Plan). Planning Coordinator to download immediately and follow steps
	Yes	N/A	Send Oil Spill Trajectory Modelling (OSTM) form APPENDIX B, Form 7 to RPS APASA response team (email	Intelligence	DAY 1: Detailed modelling within four hours of APASA receiving information from Woodside.		
Monitor and evaluate – aerial surveillance (OM02)	Yes	N/A	Marine Diesel: Instruct Aviation Duty Manager to commence aerial observations in daylight hours. Aerial surveillance observer to complete log in	Logistics – Aviation	DAY 1: Two trained aerial observers. One aircraft available. Report made available to the IMT within two		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of The Operational Monitoring Operational Plan).

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Response	Hydrocarbo	n Type			ALARP	Complete	Link to Operational Plans
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	*	for notification numbers and actions
					hours of landing after each sortie.		Planning Coordinator to download immediately and
Monitor and evaluate – satellite tracking (OM02)	Yes	N/A	Marine Diesel: The Intelligence Duty Manager should be instructed to stand up KSAT to provide satellite imagery of the spill (email).	Intelligence	DAY 1: Service provider will confirm availability of an initial acquisition within two hours.		follow steps
					Data received to be uploaded into Woodside Common Operating Picture		
Monitor and evaluate – monitoring hydrocarbons in water (OM03)	Yes	N/A	Marine Diesel: Consider the need to mobilise resources to undertake water quality monitoring (OM03).	Planning or Environment	DAY 3: Water quality assessment access and capability. Daily fluorometry reports will be provided to IMT.		Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03 of The Operational Monitoring Operational Plan).
Monitor and evaluate – pre-emptive assessment of receptors at risk (OM04)	Potentially	N/A	Marine Diesel: Consider the need to mobilise resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning or Environment	In agreement with WA DoT, deployment of two specialists for each of the Response Protection Areas (RPA) within 10 days of predicted impacts.		Pre-emptive Assessment of Sensitive Receptors at Risk (OM04 of The Operational Monitoring Operational Plan).
Monitor and evaluate – shoreline assessment (OM05)	N/A	N/A	No shoreline impact predicted				

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3. LEVEL 2/3 RESPONSE

3.1 Mobilisation of Response Techniques

For the relevant hydrocarbon type, undertake quick revalidation of the recommended techniques and pre-identified tactics indicated with a 'Yes' in **Table 3-1**. Undertake all validated pre-identified tactics immediately. These tactics should be carried out using the associated plan identified under **Table 3-1** Operational Plan column.

All response techniques and pre-identified tactics have been identified from the pre-operational Net Environmental Benefits Analysis (NEBA) presented in the Scarborough Drilling and Completions Environment Plan Appendix D (Woodside's Oil Spill Preparedness and Response Mitigation Assessment).

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Table 3-1: Level 2/3 Response Summary

Response	Hydrocart				ALARP	Complete	Link to Operational
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	Complete 🗸	Plans for notification numbers and actions
Monitor and evaluate – tracking buoy (OM02)	Yes	N/A	If a vessel is on location, consider the need to deploy the oil spill tracking buoy. If no vessel is on location, consider the need to mobilise oil spill tracking buoys from the King Bay Supply Base (KBSB) Stockpile. If a surface sheen is visible from the facility, deploy the satellite tracking buoy within two hours.	Operations	DAY 1: Tracking buoy deployed within two hours.		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan. Deploy tracking buoy in accordance with APPENDIX D – Tracking buoy deployment instructions.
Please cons	ider instruct		T DM to activate or implement any of the following Functions of Spill Assessment' identified in Appendix				sist in answering the '7
Monitor and evaluate – predictive modelling (OM01)	Yes	N/A	Marine Diesel: Undertake initial modelling using the Rapid assessment oil spill tool (Woodside Maps) and weathering fate analysis using ADIOS (or refer to the hydrocarbon information in Appendix A). Dry gas: if feasible, existing worst-case discharge modelling will be verified with available real-time data.	Intelligence or Environment	DAY 1: Marine Diesel: Initial modelling within six hours using the Rapid Assessment Tool.		Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of the Operational Monitoring Operational Plan). Planning Coordinator to download immediately and follow steps
	Yes	N/A	Marine Diesel: Send Oil Spill Trajectory Modelling (OSTM) form to RPS APASA response team (email	Intelligence	DAY 1: Marine Diesel: Detailed modelling within four hours of APASA receiving information from Woodside.		
Monitor and evaluate – aerial surveillance (OM02)	Yes	N/A	Marine diesel: Instruct Aviation Duty Manager to commence aerial observations in daylight hours. Marine Diesel: Aerial surveillance observer to complete log in	Logistics – Aviation	DAY 1: Two trained aerial observers. One aircraft available.		Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of The Operational

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Response	Hydrocart	oon Type			ALARP	Complete	Link to Operational
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	7	Plans for notification numbers and actions
			Dry gas: overflights only feasible if gas detection indicates it is safe to do so.		Report made available to the IMT within two hours of landing after each sortie.		Monitoring Operational Plan). Planning Coordinator to download immediately and follow steps
Monitor and evaluate – satellite tracking (OM02)	Yes	N/A	Marine Diesel: The Intelligence Duty Manager should be instructed to stand up KSAT to provide satellite imagery of the spill (email).	Intelligence	DAY 1: Service provider will confirm availability of an initial acquisition within two hours.		
					Data received to be uploaded into Woodside Common Operating Picture		
Monitor and evaluate – monitoring hydrocarbons in water (OM03)	Yes	N/A	Marine Diesel: Consider the need to mobilise resources to undertake water quality monitoring (OM03).	Planning or Environment	DAY 3: Water quality assessment access and capability. Daily fluorometry reports will be provided to IMT.		Detecting and Monitoring for the Presence and Properties of Hydrocarbons in the Marine Environment (OM03 of The Operational Monitoring Operational Plan).
Monitor and evaluate – pre-emptive assessment of receptors at risk (OM04)	Potentially	N/A	Marine Diesel: Consider the need to mobilise resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning or Environment	In agreement with WA DoT, deployment of two specialists for each of the Response Protection Areas (RPA) within 10 days of predicted impacts.		Pre-emptive Assessment of Sensitive Receptors at Risk (OM04 of The Operational Monitoring Operational Plan).
Monitor and evaluate – shoreline	N/A	N/A	No shoreline impact predicted				

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Response	Response Hydrocarbon Type		But Ideal Cod Took o	5	ALARP	Complete	Link to Operational
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	ý	Plans for notification numbers and actions
assessment (OM05)							
Surface Dispersant	No	N/A	Not applicable for a diesel spill or dry gas release				
Mechanical Dispersion	No	N/A	Not applicable for a diesel spill or dry gas release				
Containment and Recovery	No	N/A	Not applicable for a diesel spill or dry gas release				
In-situ Burning	No	N/A	Not applicable for a diesel spill or dry gas release				
Shoreline Protection and Deflection	No	N/A	No shoreline impact predicted				
Shoreline Clean Up	No	N/A	No shoreline impact predicted				
Oiled Wildlife Response	Yes	N/A	If oiled wildlife is a potential impact, request and mobilise AMOSC oiled wildlife containers, first strike kits and relevant personnel. Refer to relevant tactical response plan for potential wildlife at risk. Consider whether additional equipment is required from local suppliers.	Logistics and Planning	DAY 5: Contracted capability to treat up to an additional 250 individual fauna within a five-day period. Facilities for oiled wildlife rehabilitation are operational 24/7		Oiled Wildlife Response Operational Plan and relevant <u>Tactical</u> Response Plans
Scientific Monitoring (Type II)	Yes	N/A	Notify Woodside science team of spill event.	Environment			Oil Spill Scientific Monitoring Programme – Operational Plan

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Response	Hydrocarb	on Type			ALARP	Complete	Link to Operational
Techniques	Marine Diesel	Dry Gas	Pre- Identified Tactics	Responsible	Commitment Summary	1	Plans for notification numbers and actions
Well Intervention – SFRT	N/A	Yes	As per Source Control Emergency Response Plan	Operations, Logistics and Drilling and Completions (source control)	DAY 2: Remotely Operated Vehicle (ROV) on Mobile Offshore Drilling Unit (MODU) ready for deployment within 48 hours		Subsea First Response Toolkit (SFRT) Operational Plan Source Control Emergency Response Plan
Subsea Dispersant	N/A	N/A	Not applicable for a diesel spill or dry gas release				
Capping Stack	N/A	Yes	Conventional/vertical capping stack deployment with a heavy lift vessel will be attempted at the discretion of the vessel master on the day, giving due regard to the safety of the vessel and crew and consideration to the factors that may influence a safe deployment such as plume and environmental conditions (e.g. wind speed, wave height and current).	Operations, Logistics and Drilling and Completions (source control)	DAY 16: Capping stack deployed by a chartered construction vessel.		Subsea First Response Toolkit (SFRT) and Capping Stack Operational Plan Source Control Emergency Response Plan
Relief Well	N/A	Yes	As per Source Control Emergency Response Plan	Operations, Logistics and Drilling and Completions (source control)	DAY 1: Identify source control vessel availability within 24 hours. ROV on MODU ready for deployment within 48 hours. MODU mobilised to location		Source Control Emergency Response Plan

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4. PRIORITY RECEPTORS

Note: DoT is the Control Agency to respond to all the sites listed below in a Level 2/3 spill into State waters/shorelines.

Action: Provide DoT with all relevant Tactical Response Plans for these locations.

Based on hydrocarbon spill risk modelling results for the Marine Diesel scenario (Credible Scenario-01 (CS-01)) there are no priority protection areas that have the potential to be contacted by hydrocarbon at or above impact threshold levels within 48 hours of a spill. Please note that impact thresholds (10 g/m² surface hydrocarbon concentration, 100 g/m² shoreline accumulation, and 100 ppb entrained hydrocarbon concentration) are used to determine the Environment that May be Affected (EMBA) identified in the Environment Plan and are lower than response thresholds (**Table 4-2**).

Table 4-1: Response Thresholds

Surface Hydrocarbon (g/m²)	Description
>10	Predicted minimum threshold for commencing operational monitoring
50	Predicted minimum floating oil threshold for containment and recovery and surface dispersant application ²
100	Predicted optimum floating oil threshold for containment and recovery and surface dispersant application
100	Predicted minimum shoreline accumulation threshold for shoreline assessment operations
250	Predicted minimum threshold for commencing shoreline clean-up operations

Table 4-2: Receptors for Priority Protection with Potential Impact within 48 Hours (CS-01)

Receptor	Distance and Direction from Operational Area (km)	Minimum time to shoreline contact (above 100g/m²) in days	Maximum shoreline accumulation (above 100g/m²) in m³	Tactical Response Plans (also available within the Data Directory DRIMS#9542566)
Open Ocean – Commonwealth Waters	0 km (open ocean)	N/A	N/A	N/A

Hydrocarbon spill modelling results indicate the sensitive receptors listed below have the potential to be contacted by hydrocarbons beyond 48 hours of a spill:

Gascoyne AMP

Tactical Response plans can be accessed via the Oil Spill Portal - Tactical Response Plans.

Oil Spill Trajectory Modelling specific to the spill event will be required to determine the regional sensitive receptors to be contacted beyond 48 hours of a spill.

Figure 4-1 illustrates the location of regional sensitive receptors in relation to the operational area and identifies priority protection areas.

There are no assets in the vicinity of the Scarborough operational area. Modelling results show the slick from diesel will travel only 52 km from the release location. The closest asset, Santos' Ningaloo vision FPSO is approximately 196 km away.

² At 50 g/m² containment and recovery and surface dispersant application operations are not expected to be particularly effective. This threshold represents a conservative approach to planning response capability and displaying the spread of surface oil.

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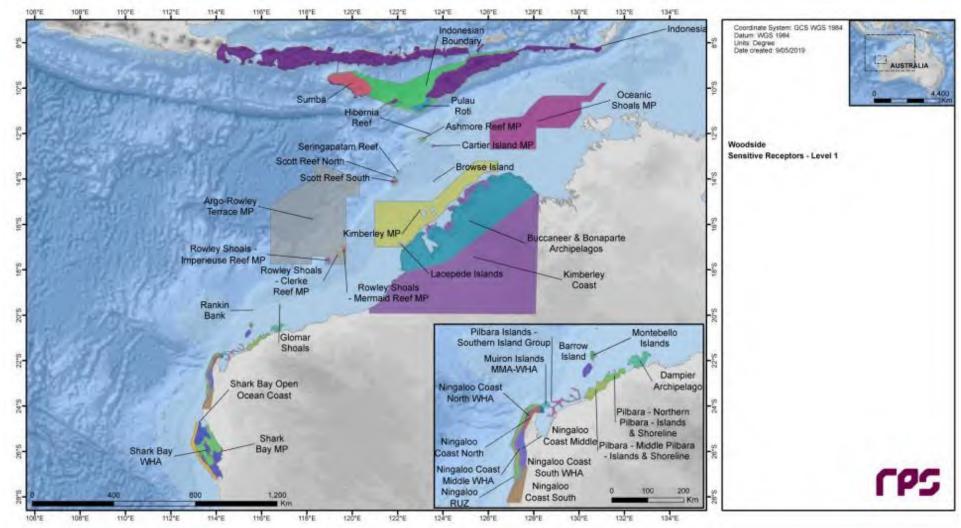


Figure 4-1: Regional Sensitive Receptors – Scarborough Drilling and Completions

5. DISPERSANT APPLICATION

Dispersant is not considered an appropriate response strategy for this activity as described in the Scarborough Drilling and Completions Environment Plan Appendix D (Woodside's Oil Spill Preparedness and Response Mitigation Assessment).

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APPENDIX A – CREDIBLE SPILL SCENARIOS AND HYDROCARBON INFORMATION

For more detailed hydrocarbon information see the Hydrocarbon Data Directory

Credible Spill Scenarios

Scenario	Product	Maximum Volumes	Suggested ADIOS2 Analogue*
CS-01: Unplanned hydrocarbon release caused by marine vessel collision (Project support vessel)	Marine diesel (API 37.2°)	250 m ³	Diesel Fuel Oil (API 37.2°)
CS-02: Loss of containment caused by refuelling hose failure, coupling failure or operator error	Marine diesel (API 37.2°)	8 m ³	Diesel Fuel Oil (API 37.2°)
CS-03: Loss of well control during drilling of development well	Dry gas	No liquid hydrocarbon	N/A

^{*}Initial screening of possible ADIOS2 analogues was done by considering hydrocarbons with similar APIs. Suggested selection was based on the closest distillation cut to WEL hydrocarbon. Only hydrocarbons with distillation cuts that showed results for > 380°C were included in selection process.

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Marine Diesel (Group 2 Oil)

Marine diesel is a mixture of volatile and persistent hydrocarbons, with approximately 45% by mass predicted to evaporate over the first day or two, depending upon the prevailing conditions, with further evaporation slowing over time. The heavier components of diesel have a strong tendency to entrain into the upper water column due to wind waves, but can refloat to the surface if wind waves abate.

A series of model weather tests were conducted to illustrate the potential behaviour of marine diesel when exposed to idealised and representative environmental conditions:

- A one-off release of 50 m³ of marine diesel over 1-hour onto the water surface was modelled under calm wind conditions (constant 5 knots), assuming low seasonal water temperature (27 °C) and average air temperature (25 °C). Slick also subject to ambient tidal and drift currents (Figure A-1).
- A one-off release of 50 m³ of marine diesel over 1-hour onto the water surface was modelled under variable wind conditions (4-19 knots, drawn from representative data files), assuming low seasonal water temperature (27 °C) and average air temperature (25 °C). Slick also subject to ambient tidal and drift currents (**Figure A-2**).

The first case is indicative of cumulative weathering rates under calm conditions that would not generate entrainment, while the second case may represent conditions that could cause a minor degree of entrainment. Both scenarios provide examples of potential behaviour during periods of a spill event, once the oil reaches the surface.

The mass balance forecast for the constant-wind case (**Figure A-1**) for marine diesel shows that approximately 45% of the oil is predicted to evaporate within 24 hours. Under these calm conditions the majority of the remaining oil on the water surface will weather at a slower rate due to being comprised of the longer-chain compounds with higher boiling points. Evaporation of the residual compounds will slow significantly, and they will then be subject to more gradual decay through biological and photochemical processes.

Under the variable-wind case (Figure A-2), where the winds are of greater strength, entrainment of marine diesel into the water column is indicated to be significant. Approximately 24 hours after the spill, around 45% of the oil mass is forecast to have entrained and a further 35% is forecast to have evaporated, leaving only a small proportion of the oil floating on the water surface (<1%). The residual compounds will tend to remain entrained beneath the surface under conditions that generate wind waves (approximately >6m/s).

The increased level of entrainment in the variable-wind case will result in a higher percentage of biological and photochemical degradation, where the decay of the floating slicks and oil droplets in the water column occurs at an approximate rate of 1.8% per day with an accumulated total of ~13% after 7 days, in comparison to a rate of ~0.2% per day and an accumulated total of 1.5% after 7 days in the constant-wind case. Given the large proportion of entrained oil and the tendency for it to remain mixed in the water column, the remaining hydrocarbons will decay and/or evaporate over time scales of several weeks to a few months. This long weathering duration will extend the area of potential effect, requiring the break-up and dispersion of the slicks and droplets to reduce concentrations below the thresholds.

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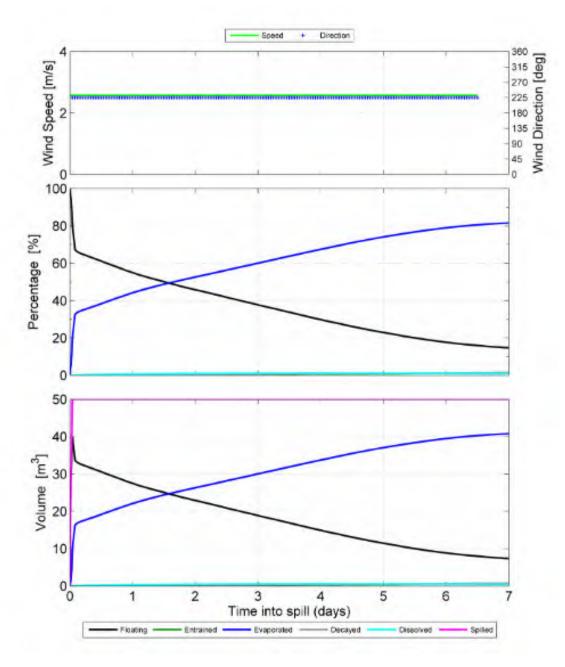


Figure A-1: Mass balance plot representing, as proportion (middle panel) and volume (bottom panel), the weathering of marine diesel spilled onto the water surface as a one-off release (50 m3 over 1-hour) and subject to a constant 5kn (2.6/s) wind at 27°C water temperature and 25°C air temperature.

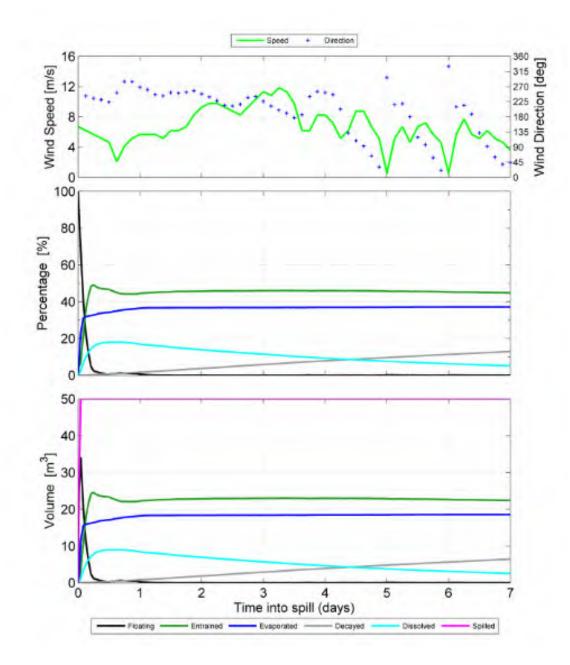


Figure A-2 Mass balance plot representing, as proportion (middle panel) and volume (bottom panel), the weathering of marine diesel spilled onto the water surface as a one-off release (50 m3 over 1 hour) and subject to variable wind at 27°C water temperature and 25°C air temperature.

Dry gas

The Scarborough reservoir properties are dry gas, primarily methane (approximately 95%) and nitrogen (approximately 4%), with some ethane, CO2 contents and limited heavier hydrocarbon components. No liquid hydrocarbons are expected at atmospheric conditions and, as a result, no stochastic or deterministic hydrocarbon spill modelling was undertaken for this scenario (CS-03). Furthermore, worst case discharge rate ('blowout' rate') modelling predicts that the gas plume will not breach the water's surface.

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APPENDIX B - FORMS

Form No.	Form Name	Link
1	Record of Initial Verbal Notification to NOPSEMA Template	
2	NOPSEMA Incident Report Form	
3	Marine Pollution Report (POLREP – AMSA)	
4	AMOSC Service Contract Note	
5	Marine Pollution Report (POLREP – DoT)	
6a	OSRL Initial Notification Form	
6b	OSRL Mobilisation Activation Form	
7	RPS Oil Spill Trajectory Modelling Request	
8	Aerial Surveillance Observer Log	

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Record of initial verbal notification to NOPSEMA



NOPSEMA pho	ne:
Date of call	
Time of call	
Call made by	
Call made to	
Information to	be provided to NOPSEMA:
Date and Time of incident/ time caller became aware of incident	
Details of incident	1 Location
	2 Title
	3 Hydrocarbon source
	□ Platform
	□ Pipeline
	□ FPSO
	□ Exploration drilling
	□ Well
	□ Other (please specify)
	4 Hydrocarbon type
	5 Estimated volume of hydrocarbon
	6 Has the discharge ceased?
	7 Fire, explosion or collision?
	8 Environment Plan(s)
	9 Other Details
Actions taken to avoid or mitigate environmental impacts	
Corrective actions	
taken or proposed to stop, control or	
remedy the	
incident	
	is made to NOPSEMA, please send this record as soon as practicable to:
1. NOPSEMA	
2. NOPTA	
3. DMIRS	

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[insert NOPSEMA Notification Template when printing]

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[insert Marine Pollution Report (POLREP - AMSA) when printing]

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[insert AMOSC Service Contract note when printing]

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[insert Marine Pollution Report (POLREP – DoT) when printing]

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FORM 6a

[insert OSRL Initial Notification Form when printing]



FORM 6b

[insert OSRL Mobilisation Activation Form when printing]



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[insert RPS Response Oil Spill Trajectory Modelling Request form when printing]



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[insert Aerial Surveillance Observer Log when printing]



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APPENDIX C – 7 Questions of spill assessment

WHAT IS IT? Oil Type/name Oil properties Specific gravity / viscosity / pour point / asphphaltines / wax content / boiling point	
WHERE IS IT? Lat/Long Distance and bearing	
HOW BIG IS IT? Area Volume	
WHERE IT IS GOING? Weather conditions Currents and tides	
WHAT IS IN THE WAY? Resources at risk	
WHEN WILL IT GET THERE? Weather conditions Currents and tides	
WHAT'S HAPPENING TO IT? Weathering processes	

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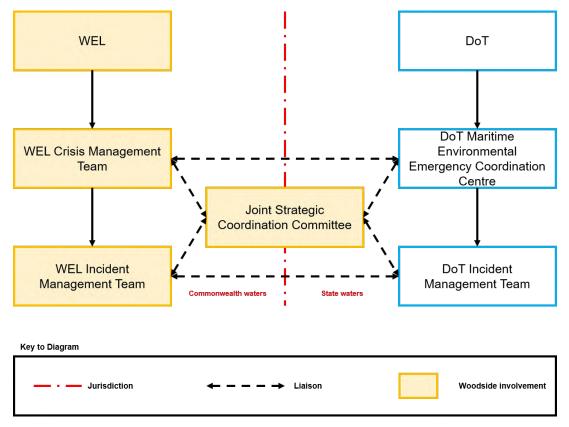
APPENDIX D - TRACKING BUOY DEPLOYMENT INSTRUCTIONS

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APPENDIX E – COORDINATION STRUCTURE FOR A CONCURRENT HYDROCARBON SPILL IN BOTH COMMONWEALTH AND STATE WATERS/SHORELINES³



The Control Agency for a Level 1 hydrocarbon spill in Commonwealth waters resulting from an offshore petroleum activity is Woodside (the Petroleum Titleholder) (or AMSA for a vessel spill).

The Control Agency for a Level 2/3 hydrocarbon spill in State waters/shorelines resulting from an offshore petroleum activity is DoT. DoT will appoint an Incident Controller and form a separate IMT to only manage the spill within State waters/shorelines.

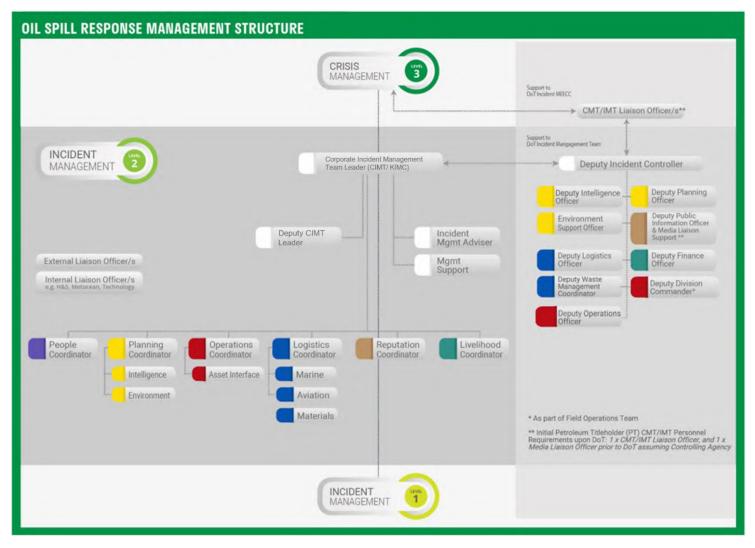
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³ Adapted from DoT Offshore Petroleum Industry Guidance Note, Marine Oil Pollution: Response and Consultation Arrangements July 2020. Note: For full structure up to Commonwealth Cabinet/Minister refer to Marine Oil Pollution: Response and Consultation Arrangements Section 6.5, Figure 3.

APPENDIX F – WOODSIDE INCIDENT MANAGEMENT STRUCTURE

Woodside Incident Management Structure for Hydrocarbon Spill (including Woodside Liaison Officers Command Structure within DoT IMT if required).



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APPENDIX G - WOODSIDE LIASON OFFICER RESOURCES TO DOT

Once DoT activates a State waters/shorelines IMT, Woodside will make available the following roles to DoT.

Area	WEL Liaison Role	Personnel Sourced from ⁴ :	Key Duties	#
DoT MEECC	CMT Liaison Officer	CIMT Leader Roster	 Provide a direct liaison between the CMT and the MEECC. Facilitate effective communications and coordination between the CMT Leader and State Marine Pollution Coordinator (SMPC). Offer advice to SMPC on matters pertaining to PT crisis management policies and procedures. 	1
DoT IMT Incident Control	WEL Deputy Incident Controller	CIMT Leader Roster	 Provide a direct liaison between the PT IMT and DoT IMT. Facilitate effective communications and coordination between the PT IC and the DoT IC. Offer advice to the DoT IC on matters pertaining to PT incident response policies and procedures. Offer advice to the Safety Coordinator on matters pertaining to PT safety policies and procedures, particularly as they relate to PT employees or contractors operating under the control of the DoT IMT. 	1
DoT IMT Intelligence	Intelligence Support Officer/ Deputy Intelligence Officer	Intelligence Coordinator Roster	 As part of the Intelligence Team, assist the Intelligence Officer in the performance of their duties in relation to situation and awareness. Facilitate the provision of relevant modelling and predications from the PT IMT. Assist in the interpretation of modelling and predictions originating from the PT IMT. Facilitate the provision of relevant situation and awareness information originating from the DoT IMT to the PT IMT. Facilitate the provision of relevant mapping from the PT IMT. Assist in the interpretation of mapping originating from the DoT IMT to the PT IMT. Facilitate the provision of relevant mapping originating from the DoT IMT to the PT IMT. 	1
DoT IMT Intelligence – Environment	Environment Support Officer	Environment Coordinator Roster	 As part of the Intelligence Team, assist the Environment Coordinator in the performance of their duties in relation to the provision of environmental support into the planning process. Assist in the interpretation of the PT OPEP and relevant TRP plans. Facilitate in requesting, obtaining and interpreting environmental monitoring data originating from the PT IMT. Facilitate the provision of relevant environmental information and advice originating from the DoT IMT to the PT IMT. 	1
DoT IMT Planning-Plans/ Resources	Deputy Planning Officer	Planning Coordinator Roster	 As part of the Planning Team, assist the Planning Officer in the performance of their duties in relation to the interpretation of existing response plans and the development of incident action plans and related sub plans. Facilitate the provision of relevant IAP and sub plans from the PT IMT. 	1

⁴ These positions would be mobilised, in consultation with DoT, to align to the actual spill scenario. The selected roles and/or individual personnel would be subject to continued evaluation to ensure continued 'best fit'. For CIMT/ KIMC roster arrangements, contact the WCC. During a prolonged response, additional personnel may be sourced through AMOSC Core Group via

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Area	WEL Liaison Role	Personnel Sourced from ⁴ :	Key Duties	#
			 Assist in the interpretation of the PT OPEP from the PT. Assist in the interpretation of the PT IAP and sub plans from the PT IMT. Facilitate the provision of relevant IAP and sub plans originating from the DoT IMT to the PT IMT. Assist in the interpretation of the PT existing resource plans. Facilitate the provision of relevant components of the resource sub plan originating from the DoT IMT to the PT IMT. (Note this individual must have intimate knowledge of the relevant PT OPEP and planning processes) 	
DoT IMT Public Information- Media/ Community Engagement	Public Information Support and Media Liaison Officer/ Deputy Public Information Officer	Reputation Coordinator Roster	 As part of the Public Information Team, provide a direct liaison between the PT Media team and DoT IMT Media team. Facilitate effective communications and coordination between the PT and DoT media teams. Assist in the release of joint media statements and conduct of joint media briefings. Assist in the release of joint information and warnings through the DoT Information and Warnings team. Offer advice to the DoT Media Coordinator on matters pertaining to PT media policies and procedures. Facilitate effective communications and coordination between the PT and DoT Community Liaison teams. Assist in the conduct of joint community briefings and events. Offer advice to the DoT Community Liaison Coordinator on matters pertaining to the PT community liaison policies and procedures. Facilitate the effective transfer of relevant information obtained from through the Contact Centre to the PT IMT. 	1
DoT IMT Logistics	Deputy Logistic Officer	Logistics Coordinator Roster	As part of the Logistics Team, assist the Logistics Officer in the performance of their duties in relation to the provision of supplies to sustain the response effort. Facilitate the acquisition of appropriate supplies through the PTs existing OSRL, AMOSC and private contract arrangements. Collects Request Forms from DoT to action via PT IMT. (Note this individual must have intimate knowledge of the relevant PT logistics processes and contracts)	1
DoT IMT Finance- Accounts/	Deputy Finance Officer	Livelihood Coordinator Roster	As part of the Finance Team, assist the Finance Officer in the performance of their duties in relation to the setting up and payment of accounts for those services acquired through the PTs existing OSRL, AMOSC and private contract arrangements. Facilitate the communication of financial monitoring information to the PT to allow them to track the overall cost of the response.	1

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Area	WEL Liaison Role	Personnel Sourced from ⁴ :	Key Duties	#
Financial Monitoring			 Assist the Finance Officer in the tracking of financial commitments through the response, including the supply contracts commissioned directly by DoT and to be charged back to the PT. 	
DoT IMT Operations	Deputy Operations Officer	Operations Coordinator Roster	 As part of the Operations Team, assist the Operations Officer in the performance of their duties in relation to the implementation and management of operational activities undertaken to resolve an incident. Facilitate effective communications and coordination between the PT Operations Section and the DoT Operations Section. Offer advice to the DoT Operations Officer on matters pertaining to PT incident response procedures and requirements. Identify efficiencies and assist to resolve potential conflicts around resource allocation and simultaneous operations of PT and DoT response efforts. 	1
DoT IMT Operations – Waste Management	Facilities Support Officer/ Deputy Waste Management Coordinator	Logistics Materials Coordinator Roster	 As part of the Operations Team, assist the Waste Management Coordinator in the performance of their duties in relation to the provision of the management and disposal of waste collected in State waters. Facilitate the disposal of waste through the PT's existing private contract arrangements related to waste management and in line with legislative and regulatory requirements. Collects Request Forms from DoT to action via PT IMT. 	1
DoT FOB Operations Command	Deputy On- Scene Commander/ Deputy Division Commander	CIMT Leader Roster	 As part of the Field Operations Team, assist the Division Commander in the performance of their duties in relation to the oversight and coordination of field operational activities undertaken in line with the IMT Operations Section's direction. Provide a direct liaison between the PT FOB and DoT FOB. Facilitate effective communications and coordination between the PT Division Commander and the DoT Division Commander. Offer advice to the DoT Division Commander on matters pertaining to PT incident response policies and procedures. Assist the Safety Coordinator deployed in the FOB in the performance of their duties, particularly as they relate to PT employees or contractors. Offer advice to the Safety Coordinator deployed in the FOB on matters pertaining to PT safety policies and procedures. 	1
			Total Woodside personnel initially required in DoT IMT	11

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DOT LIAISON OFFICER RESOURCES TO WOODSIDE

Once DoT activates a State waters/shorelines IMT, Woodside will request DoT make available the following roles:

Area	DoT Liaison Role	Personnel Sourced from:	Key Duties	#
WEL CMT	DoT Liaison Officer (prior to DoT assuming Controlling Agency) / Deputy Incident Controller – State waters (after DoT assumes Controlling Agency)	DoT	 Facilitate effective communications between DoT's SMPC / Incident Controller and the Petroleum Titleholder's appointed CMT Leader / Incident Controller. Provide enhanced situational awareness to DoT of the incident and the potential impact on State waters. Assist in the provision of support from DoT to the Petroleum Titleholder. Facilitate the provision technical advice from DoT to the Petroleum Titleholder Incident Controller as required. 	1
WEL Reputation FST (Media Room)/ Public Information – Media	DoT Media Liaison Officer	DoT	 Provide a direct liaison between the PT Media team and DoT IMT Media team. Facilitate effective communications and coordination between the PT and DoT media teams. Assist in the release of joint media statements and conduct of joint media briefings. Assist in the release of joint information and warnings through the DoT Information and Warnings team. Offer advice to the PT Media Coordinator on matters pertaining to DoT and wider Government media policies and procedures. 	1
			Total DoT Personnel Initial Requirement to Woodside	2

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APPENDIX I. MASTER EXISTING ENVIRONMENT

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Description of the Existing Environment

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1. INTRODUCTION

1.1 Purpose

This document applies, where indicated in the relevant Environment Plan, to Woodside Energy Ltd. (Woodside) activities and operations.

1.2 Scope

This document describes the existing environment within the Woodside areas of activity located in Commonwealth waters off north-western Western Australia (WA), with a focus on the North-west Marine Region (NWMR) (Figure 1-1). This document includes details of the particular and relevant values and sensitivities of the environment as required by the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 in order to inform the impact and risk evaluation of Woodside's activities within the NWMR. Furthermore, the key values of the South-west Marine Region (SWMR) and the North Marine Region (NMR) are summarised to encompass areas outside the NWMR. This is with reference to the environment that may be affected (EMBA), as defined and described in individual EPs, for unplanned hydrocarbon spill risks. Additional information appropriate to the nature and scale of the impacts and risks of activities that may interact with the environment will be used to further inform impact and risk assessments and included in the Description of the Existing Environment of individual EPs.

This document is informed by a variety of resources that includes: a search of the Department of Agriculture, Water and the Environment (DAWE) Protected Matters Search Tool (PMST) for the marine bioregions (NWMR, SWMR and NMR) and the three PMST reports provided in **Appendix A**; State (WA)/Commonwealth Marine Park Management Plans, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Species Profile and Threats Database (SPRAT), Part 13 statutory instruments (recovery plans, conservation advices and wildlife conservation plans for listed threatened and migratory species); and peer reviewed scientific publications, as well as Woodside and Joint Venture (JV) funded studies and other titleholder funded study findings available in the public domain.

1.3 Review and Revision

The information presented in this document is reviewed and updated, where relevant, on at least an annual basis to address any relevant changes, which includes but is not limited to the status of EPBC Act listed species, Part 13 Instruments, policies and guidelines and recently published scientific literature.

1.4 Regional Context

Where relevant, the physical, biological and social environments within the areas of interest are discussed with reference to the three marine bioregions of Australia—NWMR, SWMR and NMR (**Table 1-1**). The NWMR is the focal marine bioregion for the Description of the Existing Environment as this is currently the location of most of Woodside's activities.

Table 1-1. Description of the Marine Bioregions

Marine Bioregion	Description
North-west	The NWMR includes all Commonwealth waters (from 3 nautical mile [nm] from the Territorial Sea Baseline [TSB] to the 200 nm Exclusive Economic Zone [EEZ] boundary) extending from the WA/Northern Territory (NT) border to Kalbarri, south of Shark Bay in WA, covering an area of approximately 1.07 million square kilometres and includes extensive areas of shallower waters on the continental shelf, as well as deep areas of abyssal plain where water depths are 5000 m or greater.
South-west	The SWMR comprises Commonwealth waters from the eastern end of Kangaroo Island in SA to Shark Bay in WA. The region spans approximately 1.3 million square kilometres of temperate and subtropical waters and abuts the coastal waters of SA and WA.
North	The NMR comprises Commonwealth waters from west Cape York Peninsula to the NT/WA border). The region covers approximately 625,689 square kilometres of tropical waters in the Gulf of Carpentaria and Arafura and Timor seas, and abuts the coastal waters of Queensland and the NT.

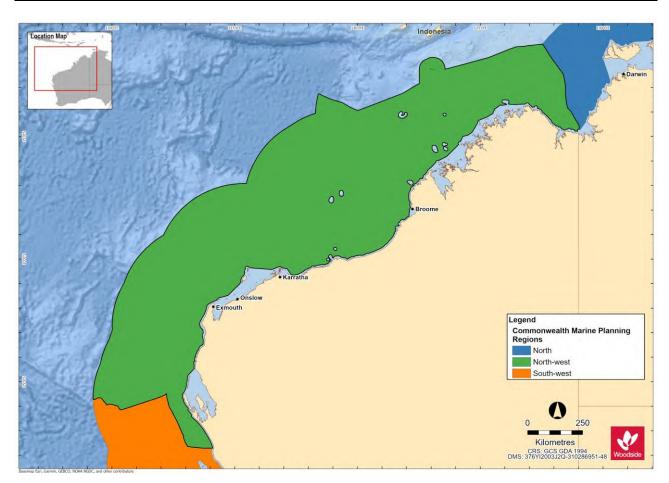


Figure 1-1. Marine Bioregions: North-west (NWMR), South-west (SWMR) and North (NMR)

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2. PHYSICAL ENVIRONMENT

2.1 Regional Context

The key physical characteristics of the NWMR, SWMR and NMR are presented in Table 2-1.

Table 2-1 Key physical characteristics of the NWMR, SWMR and NMR

Bioregion	Key Characteristics
North-west Marine Region	The NWMR experiences a tropical monsoonal climate towards the northern extent of the region, transitioning to tropical arid and subtropical arid within the central and southern areas of the region (DSEWPAC, 2012a).
	The NWMR is part of the Indo-Australian Basin, the ocean region between the north-west coast of Australia and the Indonesian islands of Java and Sumatra. Dominant currents in the Region include: the South Equatorial Current, the Indonesian Throughflow; the Eastern Gyral Current, and the Leeuwin Current (DEWHA, 2007a).
	The seafloor of the NWMR consists of four general feature types: continental shelf; continental slope; continental rise; and abyssal plain and is distinguished by a range of topographic features including canyons, plateaus, terraces, ridges, reefs, and banks and shoals.
South-west	The SWMR contains both subtropical and temperate climates, with overall light climatic cycles.
Marine Region	The SWMR experiences complex and unusual oceanographic patterns, driven largely by the Leeuwin Current and its associated currents that have a significant influence on biodiversity distribution and abundance.
	The major seafloor features of the SWMR include a narrow continental shelf on the west coast to the waters off south-west WA, and a wide continental shelf dominated by sandy carbonate sediments of marine origin in the Great Australian Bight, the region also contains a steep, muddy continental slope, many canyons and large tracts of abyssal plains (DSEWPAC, 2012b).
North Marine Region	The NMR experiences a tropical monsoonal climate with complex weather cycles, including high temperatures and heavy seasonal yet variable rainfall and cyclones, which can be both destructive (loss of seagrass and mangroves) and constructive (mobilisation of sediment into coastal habitats).
	The NMR comprises Commonwealth waters from west Cape York Peninsula to the NT–WA border, covering tropical waters in the Gulf of Carpentaria and Arafura and Timor seas. Currents in the NMR are driven largely by strong winds and tides, with only minor influences from oceanographic currents such as the Indonesian Throughflow and the South Equatorial Current (DSEWPAC, 2012c).
	The seafloor of the NMR consists mainly of a wide continental shelf, as well as other geomorphological features such as shoals, banks, terraces, valleys, shallow canyons and limestone pinnacles.

2.2 Marine Systems of the North-west Marine Region.

The NWMR can be divided into three large scale ecological marine systems on the basis of the influence of major ocean currents, seafloor features and eco-physical processes (e.g. climate, tides, freshwater inflow) upon the Region (DSEWPAC, 2012a). The three large scale marine systems approximate the Woodside activity areas within the NWMR (**Figure 2-1**). The key characteristics of each marine system are outlined below in **Table 2-2**.

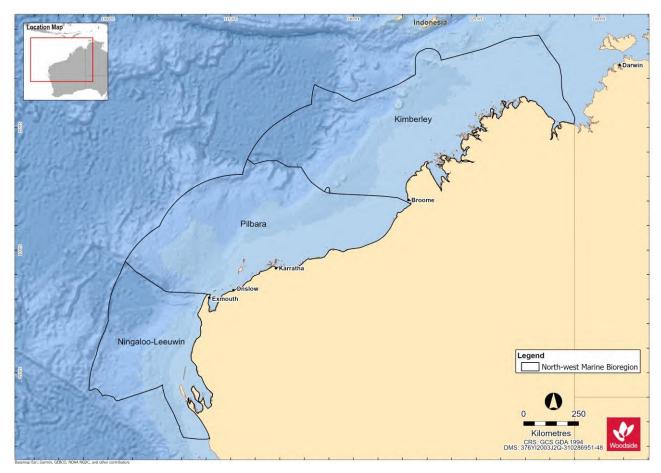


Figure 2-1. The marine systems of the North-west Marine Region (NWMR)

Table 2-2. Key characteristics of the Marine Systems of the NWMR

Note: Woodside areas align with the marine systems as described in DEWHA (2007a)

Marine System	Woodside Activity Area	Key Characteristics
Kimberley	Browse	Tropical monsoonal climate Strong influence from Indonesian Throughflow Predominantly tropical Indo-Pacific species Subject to episodic offshore cyclonic activity, rarely crossing the coast Large tidal regimes Freshwater input from terrestrial monsoonal run-off Turbid coastal waters (i.e. light limited systems) Dominated by shelf environments Predominantly hard substrates in inner to mid-shelf environments Includes a number of shelf-edge atolls (i.e. Scott Reef, Rowley Shoals)
Pilbara	North-west Shelf (NWS) / Scarborough	Tropical arid climate Transition between Indonesian Throughflow and Leeuwin Current dominated areas Predominantly tropical species High cyclone activity with frequent crossing of the coast Transitional tidal zone Internal tide activity Large areas of shelf and slope Dry coast with ephemeral freshwater inputs
Ningaloo-Leeuwin	North-west Cape	Subtropical arid climate Leeuwin Current consolidates Transitional tropical/temperate faunal area Higher water clarity in near-shore and offshore environments Narrow shelf and slope Marginal tidal range Seasonal wind forcing more dominant influence on marine environment

2.3 Meteorology and Oceanography

This section describes the general meteorological conditions and oceanography for the NWMR and provides further detail for the three Woodside activity areas. The NWMR is influenced by a complex system of ocean currents that change between seasons and between years, which generally result in its surface waters being warm and nutrient-poor, and of low salinity (DEWHA, 2007a). The mix of bathymetric features, complex topography and oceanography across the whole north-west marine environment has created and supports a globally important marine biodiversity hotspot (Wilson, 2013).

Table 2-3 NWMR climate and oceanography summary

Receptor	deceptor Description		
Meteorology			
Seasonal patterns	The NWMR associated land mass of the Australian continent is characterised as a hot and humid summer climate zone. The broader NWMR experiences variations of a tropical or monsoon climate. In the far north-west (Kimberley), there is a hot summer season from December to March and a milder winter season between April and November. The Pilbara area is described as having a tropical arid climate with high cyclone activity (DEWHA, 2007a). The Pilbara and North-west Cape has a hot summer season from October to April and a milder winter season between May and September with transition periods between the summer and winter regimes.		
Air temperature and rainfall	In summer (between September and March), maximum daily temperatures range from 31°C to 33°C. During winter (May to July), mean daily temperatures range from 18°C to 31°C (BOM¹), refer to Figure 2-2a and b . Rainfall in the region typically occurs during the summer, with highest falls observed late in the season. This is often associated with the passage of tropical low-pressure systems and cyclones.		
Wind	Wind patterns in north-west WA are dictated by the seasonal movement of atmospheric pressure systems. During summer, high-pressure cells produce prevailing winds from the north-west and south-west, which vary between 10 and 13 ms ⁻¹ . During winter, high-pressure cells over central Australia produce north-easterly to south-easterly winds with average speeds of between 6 and 8 ms ⁻¹ . Refer to Figure 2-3a and b .		
Tropical cyclones	The NWS and Pilbara coast (within the NWMR) experiences more cyclonic activity than any other region of the Australian mainland coast (BOM, 2021a). Tropical cyclone activity typically occurs between November and April and is most frequent in the region during December to March (i.e. considered the peak period), with an average of about one cyclone per month (BOM, 2021a). Refer to Figure 2-4 .		
	Oceanography		
Ocean temperature	Waters in NWMR are tropical year-round, with sea surface temperature in open shelf waters reaching ~26°C in summer and dropping to ~22°C in winter. Nearshore temperatures (as recorded for the NWS area) fluctuate more widely on an annual basis from ~17°C in winter to ~31°C in summer (Chevron Australia, 2010). Refer to Figure 2-5a and b .		
Currents	The major surface currents influencing north-west WA flow towards the poles and include the Indonesian Throughflow, the Leeuwin Current, the South Equatorial Current, and the Eastern Gyral Current. The Ningaloo Current, the Holloway Current, the Shark Bay Outflow, and the Capes Current are seasonal surface currents in the region. Below these surface currents are several subsurface currents, the most important of which are the Leeuwin Undercurrent and the West Australian Current. These subsurface currents flow towards the equator in the opposite direction to surface currents (DEWHA, 2007a). Refer to Figure 2-6 . The offshore waters of the NWMR are characterised by surface and subsurface boundary currents that flow along the continental shelf/slope and are enhanced through inflows from the ocean basins and are an important conduit for the poleward heat and mass transport along the west coast (Wijeratne <i>et al.</i> , 2018). Local physical oceanography is strongly influenced by the large-scale water movements of the Indonesian Throughflow (Liu <i>et al.</i> 2015; Sutton <i>et al.</i> 2019). Typically, a warm and well-mixed oligotrophic surface layer and a cooler and more nutrient rich, deeper water layer (Menezes <i>et al.</i> 2013).		
Waves	Sea surface waves within the NWMR, generally reflect the direction of the synoptic winds and flow predominately from the south-west in the summer and east in winter (Pearce <i>et al.</i> , 2003). The NWS within the NWMR is a known area of internal wave generation. Both internal tides and internal waves are thought to be more prevalent during summer months due to the increased stratification of the water column (DEWHA, 2007a). Along the continental slope of the NWMR, strong internal waves and interaction between semi-diurnal tidal currents and seabed topographic features facilitates upwelling events and localised productivity events (Holloway, 2001).		
Tides	Tides on the NWS (NWMR) increase as the water moves from deep towards the shallower coast. The highest offshore tides are experienced at the border of the Browse and Canning basins. The smallest tides are experienced at the Exmouth Plateau, near the coast. Tides of NWS (NWMR) are predominantly semi-diurnal (two highs and two lows each day), but with increasing importance of the diurnal (once per day) inequality at the southern and northern extremities of the NWS.		

¹ http://www.bom.gov.au/jsp/ncc/climate_averages/temperature/index.jsp, accessed 21 January 2021.

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Receptor	Description
	The tide range—represented by the Mean Spring Range (MSR)—increases northwards along the coast from 1.4 m at North-west Cape (Point Murat) to 7.7 m at Broome, before decreasing again (apart from local amplification in King Sound and Collier Bay) to about 5 m off Cape Londonderry. The MSR then increases again through Joseph Bonaparte Gulf and on up 5.5 m at Darwin (RPS, 2016).

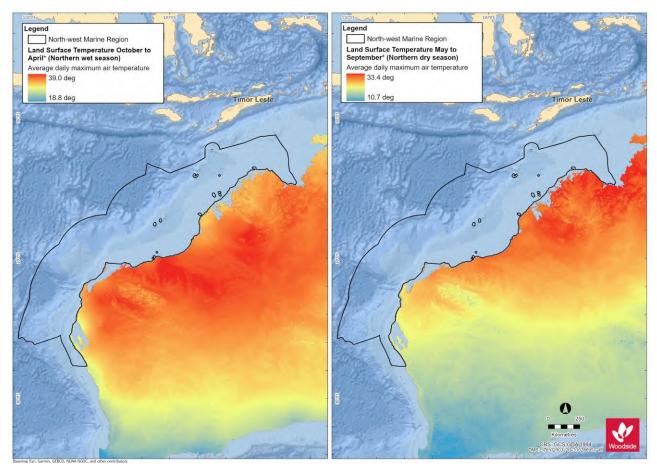


Figure 2-2. Average daily maximum air temperature for land surface adjacent to NWMR: (a) summer (northern wet season) and (b) winter (northern dry season)

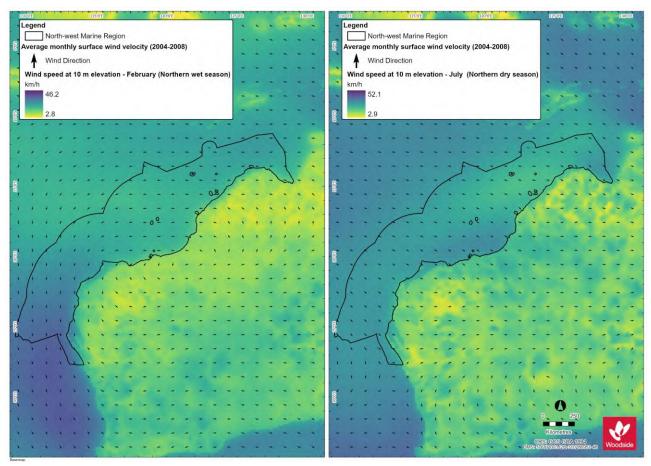


Figure 2-3. Average monthly surface wind direction and velocity for NWMR: (a) summer (February, northern wet season) and (b) winter (July, northern dry season)

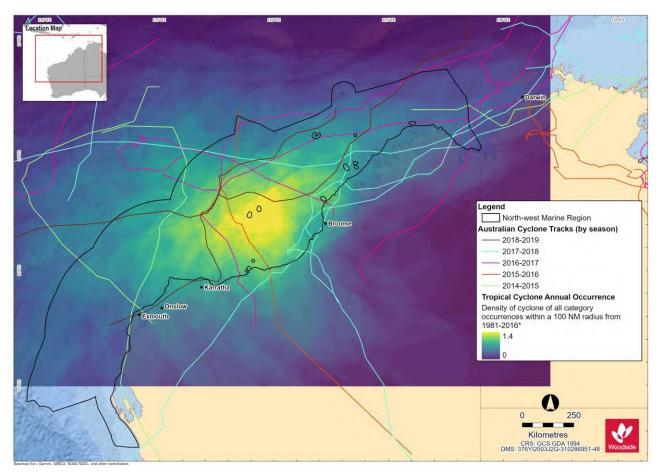


Figure 2-4. Tropical cyclone annual occurrence and cyclone tracks for NWMR

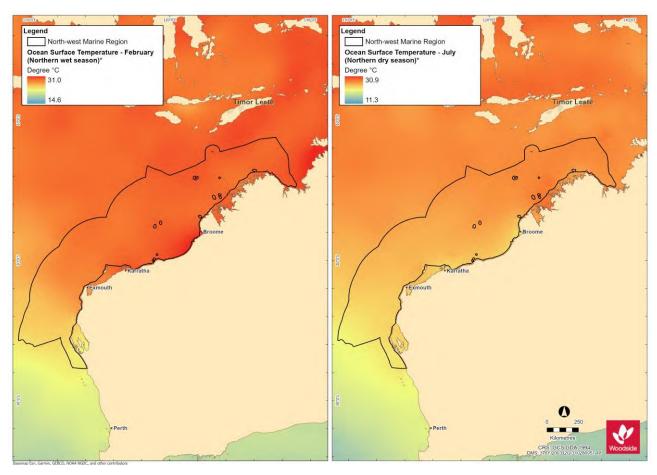


Figure 2-5. Ocean surface temperature for NWMR: (a) summer (February, northern wet season) and (b) winter (July, northern dry season)

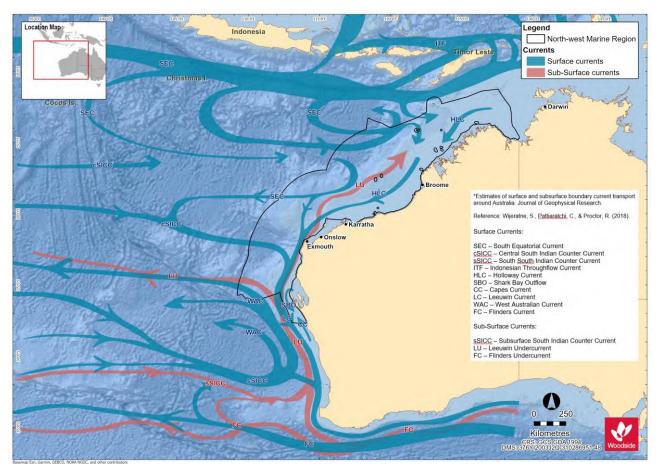


Figure 2-6. Ocean surface and sub-surface currents of the NWMR and wider region

2.3.1 **Browse**

Table 2-4 Summary meteorology and oceanography for Browse (refer to Appendix B for supporting metocean figures)

notoccan rigares)			
Receptor	Description		
	Meteorology		
Seasonal patterns	The Browse area overlapping the Kimberley marine system experiences tropical monsoon climate with two distinct seasons: the wet season from December to March and dry season from April to November.		
Air temperature	The mean annual air temperature recorded at Troughton Island between 2010 and 2020 ranged from 30.1°C in 2011 to 32.6°C in 2016 and highest mean monthly air temperatures were recorded for the months of November and December (BOM, 2021b).		
Rainfall	Rainfall recorded from Troughton Island in the Browse basin ranged from barely detectable (<1 mm) mean monthly level to >100 mm in December to March, with the highest rainfall recorded for January. Reflecting the wet monsoon season of the Kimberley marine system (BOM, 2021c).		
Wind	The dry season experiences high pressure systems that bring east to south-easterly winds with average wind speeds during the season of approximately 16.6 km/hr and maximum wind gusts of 65 km/hr. In contrast the wet season brings predominately westerly winds with average wind speeds approximately 17 km/hr and maximum gusts exceeding 100 km/hr (generally associated with tropical cyclones (MetOcean Engineers, 2005).		
Oceanography			
Currents	Surface currents exhibit seasonal directionality, with flow to the south-west during March to June and more variable outside this period (Woodside, 2019). This is consistent with the stronger Leeuwin Current flow during winter months, with more variable currents driven by local wind stress during periods of weaker Leeuwin Current flow.		

2.3.2 North West Shelf / Scarborough

Table 2-5 Summary meteorology and oceanography for the North West Shelf and Scarborough (refer to Appendix B for supporting metocean figures)

Receptor	Description			
	Meteorology			
Seasonal patterns	The NWS and Scarborough areas experience the monsoonal climate of the wider NWMR with a distinct wet and dry seasonal regime and transitions periods between seasons.			
Air temperature	Air temperatures as measured at the North Rankin A platform on NWS ranged from a maximum average of 39.5°C in summer to a minimum average temperature of 15.6°C in winter (Woodside, 2012).			
Rainfall	Rainfall patterns annually reveal the wet season with highest rainfalls during the late summer, often associated with the passage of tropical low-pressure systems and cyclones. Rainfall in the dry season is typically extremely low. (Pearce et al. 2003).			
Wind	Winds are typically from the southwest during the wet season (summer) and tending from the south-east during the dry season (winter). The summer south-westerly winds are driven by high pressure cells that pass from west to east over the Australian continent. During the winter period, the relative position of the high-pressure cells shifts further north, leading to prevailing south-easterly winds from the mainland (Pearce <i>et al.</i> 2003).			
	Oceanography			
Currents	The large-scale ocean currents of the NWMR, primarily the Indonesian Throughflow and Leeuwin Current (and Holloway Current), are the primary influence on the NWS and Scarborough areas. The ITF and Leeuwin Current are strongest during the late summer and winter and flow reversals to the north-east, typically short-lived and weak, when there are strong south-westerly winds can generate localised upwelling on the shelf edge (Holloway and Nye, 1985; James <i>et al.</i> 2004 and Condie <i>et al.</i> 2006).			

2.3.3 North-west Cape

Table 2-6 Summary meteorology and oceanography for the North-west Cape (refer to Appendix B for supporting metocean figures)

Receptor	Description		
	Meteorology		
Seasonal patterns	The climate of the NWMR is dry tropical exhibiting a hot summer season and a mild winter season. There are often distinct transition periods between the summer and winter regimes, characterised by periods of relatively low winds.		
Air temperature	Air temperatures in the North-west Cape area range from high summer temperatures (maximum average of 37.5°C) and mild winter temperatures (minimum average of 12.2°C).		
Rainfall	Rainfall typically occurs during the summer, with highest rainfall during later summer and autumn, often associated with the passage of tropical low-pressure systems and cyclones. Rainfall is typically low in winter.		
Wind	Winds vary seasonally, generally from the south-west quadrant during summer months and the south, south-east quadrant during the autumn and winter months. The summer south-westerly winds are driven by high pressure cells that pass from west to east over the Australian continent. Winds typically weaken and are more variable during the transitional period between the summer and winter seasons, generally between April to August.		
	Oceanography		
Currents	Surface currents exhibit seasonal directionality, with flow to the south-west during March to June and more variable outside this period (Woodside, 2016). This is consistent with the stronger Leeuwin Current flow during winter months, with more variable currents driven by local wind stress during periods of weaker Leeuwin Current flow.		

2.4 Physical Environment of NWMR

Based on the Integrated Marine and Coastal Regionalisation of Australia (IMCRA) Version 4.0, there are eight provincial bioregions that occur within the NWMR, which are based on patterns of demersal fish diversity, benthic habitat and oceanographic data (Commonwealth of Australia, 2006), **Figure 2-7**. Of the eight provincial bioregions that occur within the NWMR, these include four offshore (~65% of total NWMR area) and four shelf (~35% of total NWMR area) bioregions (Baker *et al.*, 2008).

The NWMR is a tropical carbonate margin that comprises an extensive area of shelf, slope and abyssal plain/deep ocean floor, as well as complex areas of bathymetry such as plateau, terraces and major canyons (Harris *et al.*, 2005). A series of reefs are located on the outer shelf/slope of the NWMR, including Ashmore, Cartier, Scott and Seringapatam reefs (Baker *et al.*, 2008). The distribution of seafloor geomorphic features has been systematically mapped over much of the Australian margin and adjacent seafloor. The mapped area can be divided into 10 geomorphic regions, of which the NWMR overlays two; the Western Margin and Northern Margin (Harris *et al.*, 2005). Most of the region consists of either continental slope (61%) or continental shelf (28%) (DEWHA, 2007a) with more than 40% of the NWMR having a water depth less than 200 m. The shallow shelf is contrasted by features such as the Cuvier and Argo abyssal plains, which reach depths more than five kilometres. A unique feature of the region is the significant narrowing of the continental shelf around North-west Cape (approximately 7 km wide) from the broad continental shelf in the north of the region (approximately 400 km wide at Joseph Bonaparte Gulf) (DEWHA, 2007a), **Figure 2-8.**

The geological history of the region, as well as its geomorphology and oceanography, has influenced the composition and distribution of sediments (DEWHA, 2007a). The sedimentology of the NWMR is dominated by marine carbonates, which show a broad zoning and fining with water depth. Main trends of the NWMR sediments include a tropical carbonate shelf that is dominated by sand and gravel, an outer shelf/slope zone that is dominated by mud and a relatively homogenous rise and abyssal plain/deep ocean floor that is dominated by non-carbonate mud (Baker *et al.*, 2008), **Figure 2-9**.

The distribution and resuspension of sediments on the inner shelf is strongly influenced by the strength of tides across the continental shelf as well as episodic events such as cyclones. Further offshore, on the mid to outer shelf and on the slope itself, sediment movement is primarily influenced by ocean currents and internal tides (DEWHA, 2007a).

This variation in bathymetry and interactions with oceanographic processes provides a diversity of habitats to marine fauna and flora within the NWMR.

2.5 Air quality

The ambient air quality of all three marine regions is largely unpolluted due to the extent of the open ocean area, the activities currently carried out in each and the relative remoteness of each region.

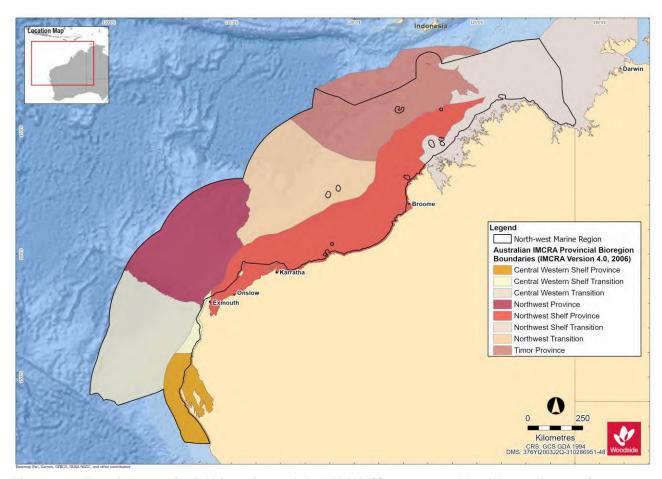


Figure 2-7. The eight provincial bioregions of the NWMR (Commonwealth of Australia, 2006)

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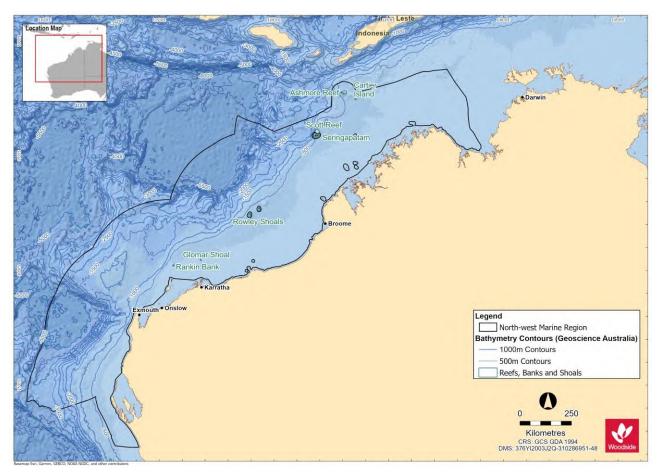


Figure 2-8. Bathymetry of the NWMR

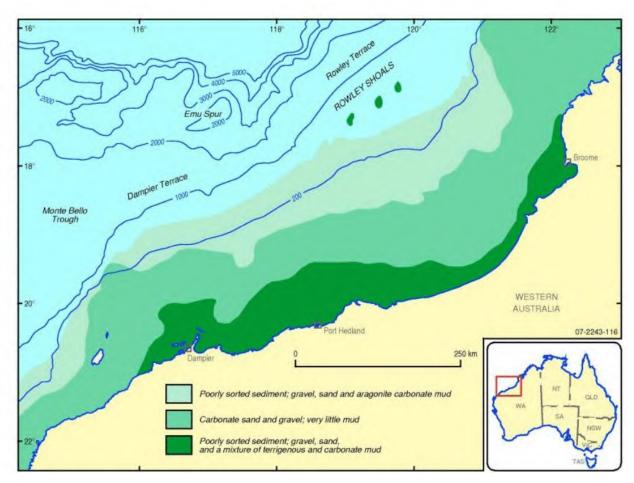


Figure 2-9. Overview of the seabed sediments of the NWMR (Baker et al., 2008)

3. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE (EPBC ACT)

3.1 Summary of Matters of National Environmental Significance (MNES)

This section summarises the matters of national environmental significance (MNES) reported for the three bioregions; NWMR (Table 3-1), SWMR (Table 3-2) and NMR (Table 3-3), based on the Protected Matters search reports (Appendix A).

Additional information on these MNES are provided in subsequent sections (referenced below).

Table 3-1 Summary of MNES identified by the EPBC Act Protected Matters Search Tool (PMST) as potentially occurring within the NWMR

MNES	Number	Description	Section of this Document
World Heritage Properties	2	Shark Bay The Ningaloo Coast	Section 10
National Heritage Places	5	Shark Bay The Ningaloo Coast The West Kimberley The Dampier Archipelago (including Burrup Peninsula) Dirk Hartog Landing Site 1616	Section 10
Wetlands of International Importance (Ramsar)	3	Ashmore Reef National Nature Reserve Eighty Mile Beach Roebuck Bay ¹	Section 10
Commonwealth Marine Area	2	EEZ and Territorial Sea Key Ecological Features (KEFs) Australian Marine Parks (AMPs) Australian Whale Sanctuary Extended Continental Shelf	Section 9 Section 10
Listed Threatened Ecological Communities	1	Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula	Terrestrial community and not considered further
Listed Threatened Species	70	Refer NWMR PMST report (Appendix A)	Section 5 – Section 8
Listed Migratory Species	84	Refer NWMR PMST report (Appendix A)	Section 5 – Section 8

¹ Roebuck Bay is a designated Wetland of International Importance (Ramsar site), which was not included in the PMST Report (Appendix A).

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Table 3-2 Summary of MNES identified by the EPBC Act Protected Matters Search Tool (PMST) as potentially occurring within the SWMR

MNES	Number	Description	Section of this Document
World Heritage Properties	0	N/A	N/A
National Heritage Places	3	Cheetup Rock Shelter Batavia Shipwreck Site and Survivor Camps Area 1629 – Houtman Abrolhos HMAS Sydney II and HSK Kormoran Shipwreck Sites	Section 10
Wetlands of International Importance (Ramsar)	4	Becher Point Wetlands Forrestdale and Thomsons Lakes Peel-Yalgorup System Vasse-Wonnerup System	Section 10
Commonwealth Marine Area	2	EEZ and Territorial Sea KEFs AMPs Australian Whale Sanctuary Extended Continental Shelf	Section 9 Section 10
Listed Threatened Ecological Communities	3	Banksia Woodlands of the Swan Coastal Plain ecological community Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia Tuart (<i>Eucalyptus gomphocephala</i>) Woodlands and Forests of the Swan Coastal Plain ecological community	Terrestrial communities and not considered further
Listed Threatened Species	65	Refer SWMR PMST report (Appendix A)	N/A
Listed Migratory Species	67	Refer SWMR PMST report (Appendix A)	N/A

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Table 3-3 Summary of MNES identified by the EPBC Act Protected Matters Search Tool (PMST) as potentially occurring within the NMR

MNES	Number	Description	Section of this Document
World Heritage Properties	0	N/A	N/A
National Heritage Places	0	N/A	N/A
Wetlands of International Importance (Ramsar)	0	N/A	N/A
Commonwealth Marine Area	2	EEZ and Territorial Sea KEFs AMPs Australian Whale Sanctuary Extended Continental Shelf	Section 9 Section 10
Listed Threatened Ecological Communities	0	N/A	N/A
Listed Threatened Species	33	Refer NMR PMST report (Appendix A)	N/A
Listed Migratory Species	70	Refer NMR PMST report (Appendix A)	N/A

3.2 Part 13 Statutory Instruments for EPBC Act Listed Threatened and Migratory Species in the NWMR, SWMR and NMR

A screening process was conducted to identify which EPBC Act listed threatened and migratory species, and associated Part 13 statutory instruments, are relevant in the context of the assessment of impacts and risks associated with petroleum activities in each of the Woodside activity areas, using the following criteria:

- overlap between the Woodside activity areas with habitat critical for the survival of marine turtles, and with BIAs (overlapping the marine environment) for any listed threatened species as reported in the PMST searches;
- published literature, unpublished reports and/or credible anecdotal information (e.g. feedback from stakeholders) indicating species presence/occurrence within the Woodside activity areas:
- temporal overlap between the likely timing of petroleum activities and peak periods for key behaviours (e.g. breeding, nesting, calving, resting, foraging, migration); and
- environmental aspects associated with petroleum activities have been identified as a key threat to a species in a Part 13 statutory instrument (e.g. anthropogenic noise, light emissions, marine debris).

Relevant EPBC Act threatened and migratory species and their Part 13 statutory instruments are listed in **Table 3-4**. For the full list of EPBCA Act listed species for each marine bioregion refer to the PMST reports (**Appendix A**).

Table 3-4 Summary of MNES identified by the EPBC Act Protected Matters Search Tool (PMST) to be considered for impact or risk evaluation for Woodside operations

Species	EPBC Act Part 13 Statutory Instrument				
All vertebrate marine fauna	Threat Abatement Plan for the impacts of marine debris on vertebrate marine life (Commonwealth of Australia, 2018)				
	Marine Mammals				
Blue whale	Conservation Management Plan for the Blue Whale: A Recovery Plan under the <i>Environment Protection and Biodiversity Conservation Act</i> 1999 2015–2025 (Commonwealth of Australia, 2015a)				
Southern right whale	Conservation Management Plan for the Southern Right Whale: A Recovery Plan under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> 2011–2021 (DSEWPAC, 2012d)				
Sei whale	Conservation Advice Balaenoptera borealis sei whale (Threatened Species Scientific Committee, 2015a)				
Humpback whale	Conservation Advice Megaptera novaeangliae humpback whale (Threatened Species Scientific Committee, 2015b)				
Fin whale	Conservation Advice Balaenoptera physalus fin whale (Threatened Species Scientific Committee, 2015c)				
Australian sea lion	Recovery Plan for the Australian Sea Lion (<i>Neophoca cinerea</i>) 2013 (DSEWPAC, 2013a) (due to expire in October 2023) Conservation Advice <i>Neophoca cinerea</i> Australian Sea Lion (Threatened Species Scientific Committee, 2020a) (in effect under the EPBC Act from 23-Dec-2020)				
	Marine Reptiles				
All marine turtle species (loggerhead, green, leatherback, hawksbill, flatback, olive ridley)	Recovery Plan for Marine Turtles in Australia 2017-2027 (Commonwealth of Australia, 2017)				
Short-nosed sea snake	Approved Conservation Advice for Aipysurus apraefrontalis (Short-nosed Sea Snake) (DSEWPAC, 2011a)				
Leaf-scaled sea snake	Approved Conservation Advice for Aipysurus foliosquama (Leaf-scaled Sea Snake) (DSEWPAC, 2011b)				
	Fishes, Sharks, Rays and Sawfishes				
Grey nurse shark (west coast population)	Recovery Plan for the Grey Nurse Shark (Carcharias taurus) 2014 (DOE, 2014)				
White shark	Recovery Plan for the White Shark (Carcharodon carcharias) 2013 (DSEWPAC, 2013b)				
Whale shark	Conservation Advice Rhincodon typus whale shark (Threatened Species Scientific Committee, 2015d)				
All sawfishes (largetooth, green, dwarf, speartooth, narrow)	Sawfish and River Sharks Multispecies Recovery Plan (Commonwealth of Australia, 2015b)				

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Species	EPBC Act Part 13 Statutory Instrument			
	Seabirds Seabirds			
Migratory seabird species	Draft Wildlife Conservation Plan for Migratory Seabirds (Commonwealth of Australia, 2019)			
Southern giant petrel	National recovery plan for threatened albatrosses and giant petrels 2011–2016 (DSEWPAC, 2011c)			
Indian yellow-nosed albatross	National recovery plan for threatened albatrosses and giant petrels 2011–2016 (DSEWPAC, 2011c)			
Abbott's booby	Conservation Advice for the Abbott's booby - Papasula abbotti (Threatened Species Scientific Committee, 2020b)			
Australian fairy tern	Approved Conservation Advice for Sterna nereis nereis (Fairy Tern) (DSEWPAC, 2011d)			
Australian lesser noddy	Conservation Advice Anous tenuirostris melanops Australian lesser noddy (Threatened Species Scientific Committee, 2015e)			
Soft-plumaged petrel	Conservation Advice Pterodroma mollis soft-plumaged petrel (Threatened Species Scientific Committee, 2015f)			
	Shorebirds			
Migratory shorebird species	Wildlife Conservation Plan for Migratory Shorebirds (Commonwealth of Australia, 2015c)			
Eastern curlew, far eastern curlew	Conservation Advice <i>Numenius madagascariensis</i> eastern curlew (DOE, 2015a)			
Curlew sandpiper	Conservation Advice Calidris ferruginea curlew sandpiper (DOE, 2015b)			
Great knot	Conservation Advice Calidris tenuirostris Great knot (Threatened Species Scientific Committee, 2016a)			
Red knot, knot	Conservation Advice Calidris canutus Red knot (Threatened Species Scientific Committee, 2016b)			
Bar-tailed godwit (menzbieri)	Conservation Advice Limosa lapponica menzbieri Bar-tailed godwit (northern Siberia) (Threatened Species Scientific Committee, 2016c)			
Greater sand plover	Conservation Advice Charadrius leschenaultii Greater sand plover (Threatened Species Scientific Committee, 2016d)			
Lesser sand plover	Conservation Advice Charadrius mongolus Lesser sand plover (Threatened Species Scientific Committee, 2016e)			

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4. HABITAT AND BIOLOGICAL COMMUNITIES

4.1 Regional context

The NWMR habitats range from nearshore benthic primary producer habitats such as seagrass beds, coral communities and mangrove forests, to offshore soft sediment seabed habitats and submerged and emergent reef systems. These habitats support biological communities that range from low density sessile and mobile benthos, such as sponges, molluscs and echinoids (with noted areas of sponge hotspot diversity) in offshore soft sediment habitat (DSEWPAC, 2012a) to complex, diverse, remote coral reef systems.

Benthic primary producer habitats, such as seagrass beds, coral communities and mangrove forests within the SWMR, are described as a mixture of tropical and temperate species, due to the seasonal influences of the tropical waters carried south by the Leeuwin Current and the temperate waters carried north by the Capes Current (DSEWPAC, 2012b).

The NMR shares similar habitat types to the NWMR. The predominant habitat of the region includes soft muddy sediments on relatively flat terrain. Other habitat types include seagrasses, reefs, shoals and coastal habitats such as mangroves and coastal wetlands (Rochester *et al.*, 2007).

The summary of key habitats and biological communities provided in the following sub-sections is focused on the primary features of relevance to the activity areas within the NWMR – primarily the offshore habitats of the continental shelf and slope, submerged shoals and banks, and remote oceanic reef systems of recognised conservation value.

4.2 Biological Productivity of NWMR

Primary productivity of the NWMR is generally low and appears to be largely driven by offshore influences (Brewer *et al.*, 2007), with periodic upwelling events and cyclonic influences driving coastal productivity with nutrient recycling and advection. Seasonal weather patterns also influence the delivery of nutrients from deep-water to shallow water. Cyclones and north-westerly winds during the North-west monsoon (approximately November–March) and the strong offshore winds of the South-east monsoon (approximately April–September) facilitate the upwelling and mixing of nutrients from deep-water to shallow water environments (Brewer *et al.*, 2007).

The Indonesian Throughflow (ITF) has an important effect on productivity in the northern areas of the Region. Generally, its deep, warm and low nutrient waters suppress upwelling of deeper comparatively nutrient-rich waters, thereby forcing the highest rates of primary productivity to occur at depths associated with the thermocline. When the ITF is weaker, the thermocline lifts bringing deeper, more nutrient-rich waters into the photic zone and hence resulting in conditions favourable to increased productivity (DEWHA, 2007a). Similarly, the Leeuwin Current has a significant role in determining primary productivity in the southern areas of the NWMR. As with the ITF, the overlying warm oligotrophic waters of the Leeuwin Current suppress upwelling. A subsurface chlorophyll maximum is therefore formed at a depth in the water column where nutrients and light are sufficient for photosynthesis to proceed. Seasonal changes in the strength of the Leeuwin Current influence primary productivity levels and seasonal interactions between the Leeuwin and Ningaloo currents in the south of the NWMR are believed to be particularly important (DEWHA, 2007a).

Internal tides (defined as internal waves generated by the barotropic tide) are a striking characteristic of many parts of the NWMR and are associated with highly stratified water columns. Internal waves (solitons), which can raise cooler, generally more nutrient rich water higher in the water column, are generated between water depths of 400 m and 1000 m where bottom topography results in a significant change in water depth over a relatively short distance. Cyclones are episodic events in the NWMR that contribute to spikes in productivity through enrichment of surface water layers due to enhanced vertical mixing of the water column. Temporary increases in primary productivity as a result of cyclones generally last between one and two weeks, and it is believed that the impacts of

cyclones are generally limited to waters less than 100 m deep and affect benthic communities more substantially than pelagic systems (DEWHA, 2007a).

Water depth also has a significant overriding influence over productivity in the marine environment, due to its influence on light availability. This is reflected by distinct onshore and offshore assemblages of major pelagic groups of phytoplankton, microzooplankton, mesoplankton and ichthyoplankton. Productivity booms are thought to be triggered by seasonal changes to physical drivers or episodic events, as detailed above, which result in rapid increases in primary production over short periods, followed by extended periods of lower primary production. The trophic systems in the NWMR are able to take advantage of blooms in primary production, enabling nutrients generated to be used by different groups of consumers over long periods (DEWHA, 2007a).

Little detailed information is available about the trophic systems in the NWMR. The utilisation of available nutrients is thought to differ between pelagic and benthic environments, influenced by water depth and vertical migration of some species groups in the water column. In the pelagic system, it is thought that approximately half of the nutrients available are utilised by microzooplankton (e.g. protozoa) with the remainder going to macro/meso-zooplankton (e.g. copepods). As primary and secondary consumers, gelatinous zooplankton (e.g. salps, coelenterates) and jellyfish are thought to play an important role in the food web, contributing a significant proportion of biomass in the marine system during and for periods after booms in primary productivity. Salps are semi-transparent, barrel-shaped marine animals that can reproduce quickly in response to bursts in primary productivity and provide a food source for many pelagic fish species (DEWHA, 2007a).

4.3 Planktonic Communities in the NWMR

The NWMR has two distinct phytoplankton assemblages; a tropical oceanic community in offshore waters and a tropical shelf community confined to the NWS (Hallegraeff, 1995). MODIS (Moderate Resolution Imaging Spectrometer) satellite datasets from the NWMR indicates that chlorophyll (and thus phytoplankton) levels are low in summer months (December to March) and higher in the winter months (Schroeder *et al.*, 2009). Low chlorophyll levels during summer months may be a result of lower plankton productivity during the wet season or lower nutrient inputs from warm surface waters dominant during summer. However, it is likely that much of the primary production is taking place below the surface, where the MODIS imagery does not penetrate (Schroeder *et al.*, 2009). The winter months are relatively cloud free and surface chlorophyll is high throughout most of the region.

Zooplankton and may include organisms that complete their lifecycle as plankton (e.g. copepods, euphausiids) as well as larval stages of other taxa such as fishes, corals and molluscs. Peaks in zooplankton such as mass coral spawning events (typically in March and April) (Rosser and Gilmour, 2008) and fish larvae abundance (CALM, 2005a) can occur throughout the year. Spatial and temporal patterns in the distribution and abundance of macro-zooplankton on the North-west Shelf are influenced by sporadic climatic and oceanographic events, with large inter-annual changes in assemblages (Wilson *et al.*, 2003). Amphipods, euphausiids, copepods, mysids and cumaceans are among the most common components of the zooplankton in the region (Wilson *et al.*, 2003).

4.3.1 **Browse**

Phytoplankton within the Browse activity area is expected to reflect the conditions of the NWMR. There is a tendency for offshore phytoplankton communities in the NWMR to be characterised by smaller taxa (e.g. bacteria), whereas shelf waters are dominated by larger taxa such as diatoms (Hanson *et al.*, 2007).

Zooplankton within the activity area may include organisms that complete their lifecycle as plankton (e.g. copepods, euphausiids) as well as larval stages of other taxa such as fishes, corals and molluscs. Peaks in zooplankton such as mass coral spawning events (typically in March and April) (Rosser and Gilmour, 2008; Simpson *et al.*, 1993) and fish larvae abundance (CALM, 2005a) can occur throughout the year.

The influence of the Indonesian Throughflow restricts upwelling across the Kimberley System (approximately equates to the Browse activity area). However, small-scale topographically associated current movements and upwellings are thought to occur, which inject nutrients into specific locations within the system and result in 'productivity hot-spots'. Similarly, internal waves, generated at the shelf break (e.g. west of Browse Island and around submerged cliffs) play a role in making nutrients available in the photic zone. Productivity within shallow nearshore waters is driven primarily by tidal movement and terrestrial runoff whereby nutrients are mixed by tidal action and new inputs of organic matter come from the land.

4.3.2 North-west Shelf / Scarborough

Plankton communities within the NWS / Scarborough activity area are expected to reflect conditions of the NWMR. Within the Pilbara system of the NWMR (approximately equates to the NWS / Scarborough activity area). Internal tides along the NWS and Exmouth Plateau result in the drawing of deeper cooler waters into the photic zone, stirring up nutrients and triggering primary productivity. Broadly the greatest productivity within this sub-system is found around the 200 m isobath associated with the shelf break.

4.3.3 North-west Cape

Waters of the North-west Cape experience a relatively high diversity of phytoplankton groups including diatoms, coccolithophorids and dinoflagellates. During the warmer months blooms of *Trichodesmium* occur in the region, these have been observed particularly on the frontal systems around Point Murat (Heyward *et al.*, 2000).

Average Leeuwin Current phytoplankton biomass is characteristic of low productivity oceanic waters like the Indian, Pacific and Atlantic Oceans (Hanson *et al.*, 2005). However, the Canyons linking the Cuvier Abyssal Plain and Cape Range Peninsula KEF are connected to the Commonwealth waters adjacent to Ningaloo Reef, and may also have connections to Exmouth Plateau. The canyons are thought to interact with the Leeuwin Current to produce eddies inside the heads of the canyons, resulting in waters from the Antarctic intermediate water mass being drawn into shallower depths and onto the shelf (Brewer *et al.* 2007). These waters are cooler and richer in nutrients and strong internal tides may also aid upwelling at the canyon heads (Brewer *et al.* 2007). The narrow shelf width (about 10 kilometres) near the canyons facilitates nutrient upwelling and relatively high productivity. This high primary productivity leads to high densities of primary consumers, such as micro and macro-zooplankton, such as amphipods, copepods, mysids, cumaceans, euphausiids (Brewer *et al.*, 2007).

4.4 Habitats and Biological Communities in the NWMR

4.4.1 Offshore Habitats and Biological communities

The NWMR has a large area of continental shelf and continental slope, with a range of bathymetric features such as canyons, plateaus, terraces, ridges, reefs, banks and shoals. The marine environment in this region is typified by tropical to sub-tropical marine ecosystems with diverse habitats from soft sediments, canyons, remote coral reefs and limestone pavement.

The key habitats and biological communities representative of the broader NWMR are summarised in **Table 4-1**.

The key habitats and biological communities representative of the broader SWMR and NMR are summarised in **Table 4-2** and **Table 4-3**.

4.4.2 Shoreline habitats and biological communities

The NWMR encompasses offshore and coastal waters, islands and mainland shoreline habitats typified by mangroves, tidal flats, saltmarshes, sandy beaches, and smaller areas of rocky shores. Each of these shoreline types has the potential to support different flora and fauna assemblages due to the different physical factors (e.g. waves, tides, light, etc.) influencing the habitat.

The key shoreline habitats representative of the broader NWMR are summarised in **Table 4-1**.

The key shoreline habitats representative of the broader SWMR and NMR are summarised in **Table 4-2** and **Table 4-3**.

Table 4-1 Habitats and biological communities within the NWMR

Habitat/Community	Browse	NWS / Scarborough	North-west Cape	Reference
	Offshore ha	bitats and biological communit	ies	
Soft sediment with infauna	(sandy and muddy substrated communities inhabiting the such as polychaetes, and sechinoderms (starfish, cucu	a with occasional patches of coarser predominantly soft, fine sediments of tessile and mobile epifauna such as cumbers). The density of benthic fauna	ly of seabed habitats dominated by soft sediments sediments) and sparse benthic biota. The benthic the offshore habitats are characterised by infauna crustacea (shrimp, crabs and squat lobsters) and is typically lower in deep-sea sediment habitats, but the diversity of communities may be similar.	
Soft sediment with hard substrate outcropping	, in the same of t			Section 9
	Ancient Coastline at 125 m Depth Contour KEF Continental Slope Demersal Fish Communities KEF	Ancient Coastline at 125 m Depth Contour KEF Continental Slope Demersal Fish Communities KEF	Ancient Coastline at 125 m Depth Contour KEF Continental Slope Demersal Fish Communities KEF	Section 9
Coral Reef	such as fishes, crustaceans	Coral reef habitats within the NWMR have a high species diversity that includes corals, and associated reef species such as fishes, crustaceans, invertebrates, and algae. Coral reef habitats of the offshore environment of the NWMR include remote oceanic reef systems, large platform reefs, submerged banks and shoals.		
	Browse Island Scott Reef Seringapatam Reef Ashmore Reef Cartier Island Hibernia Reef	Rowley Shoals (including Mermaid Reef, Clerke Reef, Imperieuse Reef) Glomar Shoal Rankin Bank	-	Section 10
Seagrass and Macroalgae communities	Seagrass beds and benthic macroalgae reefs are a main food source for many marine species and also provide key habitats and nursery grounds (Heck Jr. et al., 2003; Wilson et al., 2010). In the northern half of Western Australia, these habitats are restricted to sheltered and shallow waters, including around offshore reef systems, due to large tidal movement, high turbidity, large seasonal freshwater run-off and cyclones.			
	Scott Reef Seringapatam Reef Ashmore Reef	Rowley Shoals (including; Mermaid Reef, Clerke Reef, Imperieuse Reef)		Section 10
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWHA, 2008). Filter feeders generally live in areas that have strong currents and hard substratum, often associated with deeper environments of the shoals and banks in the offshore NWMR.			
	Lower outer reef slopes of the oceanic reef	Glomar Shoal Rankin Bank	Cape Range canyon system	Section 10

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Habitat/Community	Browse	NWS / Scarborough	North-west Cape	Reference
	systems such as Scott Reef	Ancient coastline at 125 m depth contour KEF		
Sandy Beaches	Sandy beaches are dynamic environments, naturally fluctuating in response to external forcing factors (e.g. waves, currents, etc). Sandy beaches vary in length, width and gradient, and in sediment type, composition, and grain size throughout the NWMR, being found around islands and reefs in the offshore areas of the region.			
	Browse Island Scott Reef (Sandy Islet) Ashmore Reef Cartier Island	Montebello Islands Lowendal Islands Barrow Island	Muiron Islands	Section 10
	Nearshore/coast	al habitats and biological comr	nunities	
Coral Reef	Coral reef habitats typically islands and the mainland s		WMR include the fringing reefs around coastal	
	Kimberley East Holothuria and Long reefs Bonaparte and Buccaneer Archipelagos Montgomery Reef Adele complex (Beagle, Mavis, Albert, Churchill reefs, Adele Island)	Dampier Archipelago Montebello, Lowendal and Barrow Island Groups	Ningaloo Reef Exmouth Gulf Shark Bay	Section 10
Seagrass and Macroalgae communities	habitats and nursery groun these habitats are restricte	Seagrass beds and benthic macroalgae reefs are a main food source for many marine species and also provide key habitats and nursery grounds (Heck Jr. <i>et al.</i> , 2003; Wilson <i>et al.</i> , 2010). In the nearshore areas of the NWMR, these habitats are restricted to sheltered and shallow waters due to large tidal movement, high turbidity, large seasonal freshwater run-off and cyclones. These areas include in bays and sounds and around reef and island groups		
	King Sound	Roebuck Bay Dampier Archipelago Montebello, Lowendal and Barrow Island Groups	Ningaloo Reef Exmouth Gulf Shark Bay	Section 10
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWHA, 2007a). Filter feeders generally live in areas that have strong currents and hard substratum. Conversely, higher diversity infauna are mainly associated with soft unconsolidated sediment and infauna communities are considered widespread and well represented along the continental shelf and upper slopes of the NWMR. In nearshore areas of the NWMR, these species are generally found around reef systems.			
	-	Deeper habitats of Rankin Bank and Glomar Shoal	Deeper habitats of Ningaloo Reef and the protected sponge zone in the south	

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Habitat/Community	Browse	NWS / Scarborough	North-west Cape	Reference
Mangroves	gas exchange during low ti provide a nursery ground for	Mangroves grow in intertidal mud and sand, with specially adapted aerial roots (pneumatophores) that provide for gas exchange during low tide (McClatchie <i>et al.</i> , 2006). Mangrove forests can help stabilise coastal sediments, provide a nursery ground for many species of fish and crustacean, and provide shelter or nesting areas for seabirds (McClatchie <i>et al.</i> , 2006). Mangroves are confined to shoreline habitats, in nearshore areas of the NWMR.		
	Dampier Peninsula (including Carnot Bay, Beagle Bay and Pender Bay)	Pilbara Coastline (including; Ashburton River Delta, Coolgra Point, Robe River Delta, Yardie Landing, Yammadery Island and the Mangrove Islands) Montebello, Lowendal and Barrow Island Groups Roebuck Bay	Shark Bay Mangrove Bay, Cape Range Peninsula Exmouth Gulf	
Saltmarshes	Saltmarshes communities are confined to shoreline habitats and are typically dominated by dense stands of halophytic plants such as herbs, grasses, and low shrubs. The diversity of saltmarsh plant species increases with increasing latitude (in contrast to mangroves). The vegetation in these environments is essential to the stability of the saltmarsh, as they trap and bind sediments. The sediments are generally sandy silts and clays and can often have high organic material content.			
	- Eighty Mile Beach Shark Bay Roebuck Bay		Shark Bay	
Sandy Beaches	Sandy beaches are dynamic environments, naturally fluctuating in response to external forcing factors (e.g. waves, currents, etc). Sandy beaches vary in length, width and gradient, and in sediment type, composition, and grain size throughout the NWMR. Sandy beaches are important for both resident and migratory seabirds and shorebirds and can also provide an			
		important habitat for turtle nesting and breeding. They are located along many coastlines of the nearshore environments of the NWMR.		
	Cape Domett Lacrosse Island	Eighty Mile Beach Eco Beach Dampier Archipelago Inshore Pilbara Islands (Northern,	Ningaloo coast Muiron Islands Exmouth Gulf	
		Middle, and Southern)		

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Table 4-2 Habitats within the SWMR

Habitat/Community	Location
	Offshore
Soft sediment with infauna	Most of the SWMR seafloor is composed of soft unconsolidated sediments, but due to large variations in bathymetry there are marked differences in sedimentary composition and benthic assemblage structure across the region. Despite the prevalence of these habitats in the SWMR, very little is known about the composition or distribution of the region's sedimentary infauna (DEWHA, 2008b)
Soft sediment with hard substrate outcropping	A unique seafloor feature combining both soft sediment and hard substrates, including outcrops, terraces, continental slope, and escarpments.
	Perth Canyon Marine Park Ancient coastline at 90-120 m depth contour KEF
	Diamantina Fracture Zone Naturaliste Plateau
Coral Reef	To date, studies and understanding of the corals within the SWMR have concentrated on the shallow water areas in State Waters. Within the deeper Commonwealth waters of the SWMR little is known of the distribution of corals.
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWR, 2007). Filter feeders generally inhabit deeper habitat (below the photic zone) that have strong currents and hard substratum
	Ancient coastline at 90-120 m depth
	Diamantina Fracture Zone
	Naturaliste Plateau
	Perth Canyon Marine Park
	South-west Corner Marine Park
	Nearshore
Coral Reef	The northern extent of the SWMR coincides loosely with the disappearance of abundant and diverse coral from coastal habitats. To the south of Shark Bay, abundant corals occur predominantly around offshore islands, with corals at inshore sites occurring in very isolated patches of non-reef coral communities, usually of reduced species richness.
	Houtman Abrolhos Islands Rottnest Island
Seagrass and Macroalgae communities	Within the SWMR, macroalgae and seagrass communities are noted for their extent, species richness and endemism. The clear waters of the region allow light to reach greater depths, with some species found at much greater depths than usual (down to 120 m) (DEWR, 2007). Of the known species there are more than 1000 species of macro-algae and 22 species of seagrass consisting of tropical and temperate species. Seagrass and macro-algae occur in areas with sheltered bays and in the inter-reef lagoons along exposed sections of the coast.
	Houtman Abrolhos Islands Jurien Marine Park
	Shoalwater Islands Marine Park
	Geographe Marine Park
	Cockburn Sound
	Rottnest Island this document may be reproduced, adapted, transmitted, or stored in any form by any process (electronic or otherwise) without the specific

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Habitat/Community	Location
	Commonwealth marine environment within and adjacent to the west-coast inshore lagoons KEF Commonwealth marine environment within and adjacent to Geographe Bay KEF Commonwealth marine environment surrounding the Recherche Archipelago KEF
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWR, 2007). Filter feeders generally live in areas that have strong currents and hard substratum.
	Houtman Abrolhos Islands Recherche Archipelago
Mangroves	Mangroves grow in intertidal mud and sand, with specially adapted aerial roots (pneumatophores) that provide for gas exchange during low tide (McClatchie <i>et al.</i> , 2006). Mangrove forests can help stabilise coastal sediments, provide a nursery ground for many species of fish and crustacean, and provide shelter or nesting areas for seabirds (McClatchie <i>et al.</i> , 2006). Mangroves are confined to shoreline habitats, in nearshore areas of the SWMR.
	Houtman Abrolhos Islands
Sandy Beaches	Sandy beaches within the SWMR are important for both resident and migratory seabirds and shorebirds and can also host breeding populations of the Australian sea lion. They are found along many coastlines of the nearshore environments of the SWMR. In addition to this, beaches in the SWMR provide a variety of socio-economic values including tourism, commercial and recreational fishing, and support other recreational activities.
	Houtman Abrolhos Islands
	Marmion Marine Park
	Ngari Capes Marine Park
	Walpole and Nornalup Inlets Marine Park

Table 4-3 Habitats and Biological Communities within the NMR

Habitat/Community	Location
	Offshore habitats and biological communities
Soft sediment with infauna	Most of the offshore environment of the NMR is characterised by relatively flat expanses of soft sediment seabed. The soft sediments of the region are characterised by moderately abundant and diverse communities of infauna and mobile epifauna dominated by polychaetes, crustaceans, molluscs, and echinoderms.
Soft sediment with hard substrate outcropping	A unique seafloor feature combining both soft sediment and hard substrates, including outcrops, terraces, continental slope, and escarpments. The variability in substrate composition may contribute to the presence of unique ecosystems. Species present include sponges, soft corals and other sessile filter feeders associated with hard substrate sediments.
	Carbonate bank and terrace system of the Van Diemen Rise KEF Pinnacles of the Bonaparte Basin KEF
Coral Reef	Offshore coral reefs within the NMR is generally associated with a series of submerged shoals and banks. The shoals/banks in the region support tropical marine biota consistent with that found on emergent reef systems of the Indo West Pacific region such as Ashmore Reef, Cartier Island, Seringapatam Reef and Scott Reef (Heyward <i>et al.</i> , 1997)
	Pinnacles of the Bonaparte Basin KEF Evans Shoal Tassie Shoal Blackwood Shoal
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWHA, 2007b). Filter feeders generally live in areas that have strong currents and hard substratum and typically associated with the deeper habitats of the submerged shoals and banks, and canyon features.
	Carbonate bank and terrace system of the Van Diemen Rise KEF
	Pinnacles of the Bonaparte Basin KEF
	Tributary Canyons of the Arafura Depression KEF
	Evans Shoal
	Tassie Shoal
	Goodrich Bank Nearshore
Coral Reef	Within the NMR corals occur both as reefs and in non-reef coral communities. Nearshore reefs include patch reefs and fringing reefs
Corai Reei	sparsely distributed within the region. Coral reefs within the NMR provides breeding and aggregation areas for many fish species including mackerel and snapper and offer refuges for sea snakes and apex predators such as sharks.
	Submerged coral reefs of the Gulf of Carpentaria KEF Darwin Harbour
Seagrass and Macroalgae communities	Seagrasses provide key habitats in the NMR. They stabilise coastal sediments and trap and recycle nutrients. They provide nursery grounds for commercially harvested fish and prawns and provide feeding grounds for dugongs and green turtles. Seagrass distribution in the region is largely associated with sheltered small bays and inlets including shallow waters surrounding inshore islands.
	Field Island The mainland coastline adjacent to Kakadu National Park
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Habitat/Community	Location
Filter Feeders/ heterotrophic	Filter feeder epifauna such as sponges, ascidians, soft corals, and gorgonians are animals that feed by actively filtering suspended matter and food particles from water, by passing the water over specialised filtration structures (DEWHA, 2007b). Filter feeders generally live in areas that have strong currents and hard substratum.
	Cape Helveticus
Mangroves	Mangroves grow in intertidal mud and sand, with specially adapted aerial roots (pneumatophores) that provide for gas exchange during low tide (McClatchie <i>et al.</i> , 2006). Mangroves provide habitat for waterbirds and support many commercially and recreationally important fish and crustacean species for parts of their life cycles. They buffer the coast from large tidal movements, storm surges and flooding.
	Tiwi Islands
	Darwin Harbour
	The mainland coastline adjacent to the Daly River
Sandy Beaches	Sandy beaches vary in length, width and gradient, and in sediment type, composition, and grain size throughout the NMR and are important for both resident and migratory seabirds and shorebirds. Sandy beaches can also provide an important habitat for turtle nesting. They are located along many coastlines of the nearshore environments of the islands and mainland shores of the NMR.
	Tiwi Islands
	Cobourg Peninsula
	Joseph Bonaparte Gulf

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5. FISHES, SHARKS AND RAYS

5.1 Regional Context

Western Australian waters provide important habitat for listed fishes, sharks, and rays including areas that support key life stages such as breeding, foraging, and migration routes for fish species. Pelagic and demersal fishes occupy a range of habitats throughout each of the regions, from coral reefs to open offshore waters, and are an extremely important component of ecosystems, providing a link between primary production and higher predators, with many species being of conservation value and important for commercial and recreational fishing.

The fish fauna in the NWMR is diverse. Of the approximately 500 shark species found worldwide, 94 are found in the region (DEWHA, 2008). Approximately 54 species of syngnathids (seahorses, seadragons, pipehorses and pipefishes) and one species of solenostomids (ghostpipefishes) are also known to occur in the NWMR or adjacent State waters (DSEWPAC, 2012a).

The fish fauna of the SWMR includes more than 900 species occupying a large variety of habitats. However, only three species of bony fishes known to occur in the region are listed under the EPBC Act as threatened or marine species, and seven listed species of shark (DSEWPAC, 2012b).

The NMR is considered an important area for the sawfish and river shark species group, with five species of sawfishes and river sharks listed under the EPBC Act known to occur in the region (DSEWPAC, 2012c). Approximately 28 species of syngnathids and two species of solenostomids are listed marine and known to occur in the NMR, however there is a paucity of knowledge on the distribution, relative abundance and habitats of these species in the region (DEWHA, 2008).

The following sections focus on the fish species (including sharks and rays) listed as threatened or migratory that are known to occur within the NWMR. In addition, listed, conservation dependent fish and shark species for the NWMR are described. A detailed account of commercial and recreational fisheries that operate in the region is provided in **Section 11**.

Table 5-1 outlines the threatened and migratory fish species that may occur within the NWMR, with their conservation status and relevant recovery plans and/or conservation advice. **Table 5-2** provides information for species of fish that are listed as conservation dependent that may occur within the NWMR, NMR and SWMR. Note that currently there are no approved Conservation Advices in place for any of these five species.

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Table 5-1 Fish species (including sharks and rays) identified by the EPBC Act PMST for the NWMR

Species Name	Common Name	Environment Protection and Biodiversity Conservation Act 1999		Conservation Act	EPBC Act Part 13 Statutory Instrument	
		Threatened Status	Migratory Status	Listed	Conservation Status	
Rhincodon typus	Whale shark	Vulnerable	Migratory	Marine	Other specially protected fauna	Conservation Advice <i>Rhincodon typus</i> whale shark. (Threatened Species Scientific Committee, 2015d)
Carcharias taurus	Grey nurse shark (west coast population)	Vulnerable	N/A	Marine	Vulnerable	Recovery Plan for the Grey Nurse Shark (<i>Carcharias taurus</i>) (DOE, 2014a)
Carcharodon carcharias	White shark	Vulnerable	Migratory	Marine	Vulnerable	Recovery Plan for the White Shark (Carcharodon carcharias) (DSEWPAC, 2013b)
Isurus oxyrinchus	Shortfin mako	N/A	Migratory	Marine	N/A	N/A
Isurus paucus	Longfin mako	N/A	Migratory	Marine	N/A	N/A
Lamna nasus	Porbeagle shark Mackerel shark	N/A	Migratory	Marine	N/A	N/A
Carcharhinus Iongimanus	Oceanic whitetip shark	N/A	Migratory	Marine	N/A	N/A
Anoxypristis cuspidata	Narrow sawfish	N/A	Migratory	Marine	N/A	N/A
Pristis clavata	Dwarf sawfish	Vulnerable	Migratory	Marine	Priority	Sawfish and River Sharks Multispecies Recovery Plan
Pristis pristis	Largetooth (Freshwater) sawfish	Vulnerable	Migratory	Marine	Priority	(Commonwealth of Australia, 2015b)
Pristis zijsron	Green sawfish	Vulnerable	Migratory	Marine	Vulnerable	
Glyphis garricki	Northern river shark	Endangered	N/A	Marine	Priority	
Manta alfredi	Reef manta ray	N/A	Migratory	Marine	N/A	N/A
Manta birostris	Giant manta ray	N/A	Migratory	Marine	N/A	N/A

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Table 5-2 EPBC Act listed Conservation Dependent species of fishes and sharks that may occur in the NWMR, NMR and SWMR

Species Name	Common Name	Likely Occurrence / Distribution	Listing Advice
Hoplostethus atlanticus	Orange roughy, Deep-sea perch, Red roughy	SWMR	No conservation listing advice for this species. Refer to the Marine bioregional plan for the SWMR (DSEWPAC, 2012b) for further information
Thunnus maccoyii	Southern bluefin tuna	NWMR and SWMR	Threatened Species Scientific Committee (2010)
Sphyrna lewini	Scalloped hammerhead	NWMR, NMR and SWMR	Threatened Species Scientific Committee (2018)
Centrophorus zeehaani	Southern dogfish, Endeavour dogfish, Little gulper shark	SWMR	Threatened Species Scientific Committee (2013)
Galeorhinus galeus	School shark, Eastern school shark, Snapper shark, Tope, Soupfin shark	SWMR	Threatened Species Scientific Committee (2009)

5.2 Protected Sharks, Sawfishes and Rays in the NWMR

The EPBC Act Protected Matters search (**Appendix A**) identified seven species of shark and five species of river shark or sawfish listed as threatened and/or migratory within the NWMR. In addition, two species of ray (the reef manta ray and giant manta ray) are listed as migratory within the region (refer **Table 5-2**).

5.2.1 Sharks and Sawfishes

The shark species known to occur within the NWMR include: the whale shark, grey nurse shark, white shark, shortfin make, and longfin make (**Table 5-2**).

Five species of river shark or sawfish known to occur in the NWMR and include: the narrow sawfish, northern river shark, freshwater sawfish, green sawfish and dwarf sawfish (**Table 5-2**).

There are identified BIAs within the NWMR for the whale shark, freshwater sawfish, green sawfish, and dwarf sawfish (refer **Section 5.3.2**).

Table 5-2 Information on the threatened shark and sawfish species within the NWMR

Species	Preferred Habitat and Diet	Habitat Location
Whale shark	Preferred habitat: They have a widespread distribution in tropical and warm temperate seas, both oceanic and coastal (Last and Stevens, 2009). The species is widely distributed in Australian waters. Diet: Whale sharks are planktivorous sharks and feed on a variety of planktonic organisms including krill, jellyfish, and crab larvae (Last and Stevens, 2009).	Ningaloo Reef is the main known aggregation site for whale sharks in Australian waters and has the largest density of whale sharks per kilometre in the world (Martin, 2007). Refer Table 5-3 for the BIA summary for the whale shark.
Grey nurse shark (west coast population)	Preferred habitat: Most commonly found in temperate waters on, or close to, the bottom of the continental shelf, from close inshore to depths of about 200 m (McAuley, 2004). Diet: A variety of teleost and elasmobranch fishes and some cephalopods (Gelsleichter <i>et al.</i> , 1999; Smale, 2005).	Details of movement patterns of the western sub-population are unclear (McAuley, 2004) and key aggregation sites have not been formally identified within the NWMR (Chidlow et al., 2006). The NWMR represents the northern limit of the west coast population.

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Species	Preferred Habitat and Diet	Habitat Location
White shark	Preferred habitat: The species typically occurs in temperate coastal waters between the shore and the 100 m depth contour; however, adults and juveniles have been recorded diving to depths of 1000 m (Bruce et al., 2006; Bruce, 2008). Diet: Smaller white sharks (less than 3 m in length) feed primarily on teleost and elasmobranch fishes, broadening their diet as larger sharks to include marine mammals (Last and Stevens, 2009).	There are no known aggregation sites for white sharks in the NWMR, and this species is most often found south of North-west Cape, in low densities (DSEWPAC, 2012a). Given the migratory nature of the species, most likely has a broad distribution within the NWMR. No BIAs identified for NWMR.
Shortfin mako	Preferred habitat: The shortfin mako shark is a pelagic species with a circumglobal, wide-ranging oceanic distribution in tropical and temperate seas (Mollet <i>et al.</i> , 2000). Tagging studies indicate shortfin makos spend most of their time in water less than 50 m deep but with occasional dives up to 880 m (Abascal <i>et al.</i> , 2011; Stevens <i>et al.</i> , 2010). Diet: Feeds on a variety of prey, such as teleost fishes, other sharks, marine mammals, and marine turtles (Campana <i>et al.</i> , 2005).	Given the migratory nature of the species, most likely has a broad distribution within the NWMR. No BIAs identified for NWMR.
Longfin mako	Preferred habitat: A pelagic species with a wideranging oceanic distribution in tropical and temperate seas (Mollet <i>et al.</i> , 2000). Diet: Primarily teleost fishes and cephalopods (primarily squid) (Last and Stevens, 2009).	Records on longfin make sharks are sporadic and their complete geographic range is not well known (Reardon <i>et al.</i> , 2006). Given the migratory nature of the species, most likely has a broad distribution within the NWMR. No BIAs identified for NWMR.
Mackerel/Porbeagle shark	Preferred habitat: The porbeagle shark primarily inhabits offshore waters around the edge of the continental shelf. They occasionally move into coastal waters, but these movements are temporary (Campana and Joyce, 2004; Francis <i>et al.</i> , 2002). The porbeagle shark is known to dive to depths exceeding 1300 m (Campana <i>et al.</i> , 2010; Saunders <i>et al.</i> , 2011). Diet: Primarily teleost fish, elasmobranchs, and cephalopods (primarily squid) (Joyce <i>et al.</i> , 2002; Last and Stevens, 2009).	In Australia, the species occurs in waters from southern Queensland to south-west Australia (Last and Stevens, 2009). Distribution within the NWMR is unknown, but there are several records for this species on the NWS in the Atlas of Living Australia (ALA).
Oceanic whitetip shark	Preferred habitat: The oceanic whitetip shark is globally distributed in warm-temperate and tropical oceans (Andrzejaczek et al., 2018). The species may occur in tropical and sub-tropical offshore and coastal waters around Australia. They primarily occupy pelagic waters in the upper 200 m of the water column; however, they have been observed diving to depths of around 1000 m, potentially associated with foraging behaviour (Howey-Jordan et al., 2013; D'Alberto et al., 2017). The species is highly migratory, travelling large distances between shallow reef habitats in coastal waters and oceanic waters (Howey-Jordan et al., 2013). The species does exhibit a strong preference for warm and shallow waters above 120 m. Diet: Opportunistic feeders and generally target a variety of finfishes and pelagic squid, depending on habitat. Target pelagics such as tuna in open ocean as noted by the large bycatch numbers in the long line fisheries.	Given the migratory nature of the species, most likely has a broad distribution within the NWMR. No BIAs identified for NWMR.

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Species	Preferred Habitat and Diet	Habitat Location
Narrow sawfish	Preferred habitat ¹ : Shallow coastal, estuarine, and riverine habitats, however it may occur in waters up to 40 m deep (D'Anastasi <i>et al.</i> , 2013). Diet: Shoaling fishes, such as mullet, as well as molluscs and small crustaceans (Cliff and Wilson, 1994).	Shallow coastal waters of the Pilbara and Kimberly coasts (Last and Stevens, 2009).
Northern river shark	Preferred habitat¹: Rivers, tidal sections of large tropical estuarine systems and macrotidal embayments, as well as inshore and offshore marine habitats (Pillans <i>et al.</i> , 2009; Thorburn and Morgan, 2004). Adults have been recorded only in marine environments. Juveniles and sub-adults have been recorded in freshwater, estuarine and marine environments (Pillans <i>et al.</i> , 2009). Diet: Variety of fish and crustaceans (Stevens <i>et al.</i> , 2005)	Within the NWMR records have come from both the west and east Kimberley, including King Sound, the Ord and King rivers, West Arm of Cambridge Gulf and also from Joseph Bonaparte Gulf (Thorburn and Morgan, 2004; Stevens et al., 2005; Thorburn, 2006; Field et al., 2008; Pillans et al., 2008, Whitty et al., 2008; Wynen et al., 2008).
Largetooth (Freshwater) sawfish	Preferred habitat: Sandy or muddy bottoms of shallow coastal waters, estuaries, river mouths and freshwater rivers, and isolated water holes. Diet: Shoaling fishes, such as mullet, as well as molluscs and small crustaceans (Cliff and Wilson, 1994).	Refer Table 5-3 for the BIA summary for the freshwater sawfish.
Green sawfish	Preferred habitat ¹ : Inshore coastal environments including estuaries, river mouths, embayments, and along sandy and muddy beaches, as well as offshore marine habitat (Stevens <i>et al.</i> , 2005; Thorburn <i>et al.</i> , 2003). Diet: Schools of baitfish and prawns (Poganoski <i>et al.</i> , 2002), molluscs and small crustaceans (Cliff and Wilson, 1994).	Refer Table 5-3 for the BIA summary for the green sawfish.
Dwarf sawfish	Preferred habitat ¹ : Shallow (2 to 3 m) silty coastal waters and estuarine habitats, occupying relatively restricted areas and moving only small distances (Stevens <i>et al.</i> , 2008) Diet: Shoaling fish such as mullet, molluscs, and small crustaceans (Cliff and Wilson, 1994).	Refer Table 5-3 for the BIA summary for the dwarf sawfish.

¹ Preferred habitat as described within the Sawfish and River Sharks Multispecies Recovery Plan (Commonwealth of Australia, 2015b).

5.2.2 **Rays**

Rays are commonly found in the NWMR. Two listed and migratory species of ray known to occur within the NWMR: the reef manta ray and giant manta ray.

No BIAs for either the reef or giant manta ray species have been identified in the NWMR.

Table 5-3 Information on migratory ray species within the NWMR

Preferred Habitat and Diet	Habitat Location
Preferred habitat: The reef manta ray is commonly sighted within productive nearshore environments, such as island groups, atolls or continental coastlines. However, the species has also been recorded at offshore coral reefs, rocky reefs, and seamounts (Marshall <i>et al.</i> , 2009). Diet: Feed on planktonic organisms including krill and crab larvae.	A resident population of reef manta rays has been recorded at Ningaloo Reef. No BIAs identified for NWMR.
Preferred habitat: The species primarily inhabits near-shore environments along productive coastlines with regular upwelling, but they appear	The Ningaloo Coast is an important area for giant manta rays from March to August (Preen et al., 1997).
	Preferred habitat: The reef manta ray is commonly sighted within productive nearshore environments, such as island groups, atolls or continental coastlines. However, the species has also been recorded at offshore coral reefs, rocky reefs, and seamounts (Marshall <i>et al.</i> , 2009). Diet: Feed on planktonic organisms including krill and crab larvae. Preferred habitat: The species primarily inhabits near-shore environments along productive

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Species	Preferred Habitat and Diet	Habitat Location
	to be seasonal visitors to coastal or offshore sites including offshore island groups, offshore pinnacles and seamounts (Marshall <i>et al.</i> , 2011). Diet: Feed on planktonic organisms including krill and crab larvae.	No BIAs identified for NWMR.

5.3 Fish, Shark and Sawfish Biological Important Areas in the NWMR

A review of the National Conservation Values Atlas identified Biologically Important Areas (BIAs) for four species of shark and sawfish (whale shark, freshwater sawfish, green sawfish and dwarf sawfish) within the NWMR. The BIAs for the whale shark and the sawfish species include foraging, nursing and pupping areas. These are described in **Table 5-4**.

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Table 5-4 Fish, whale shark and sawfish BIAs within the NWMR

Species	Woodside Activity Area			BIAs			
	Browse	NWS/S	NWC	Pupping	Nursing	Foraging	
Whale shark	√	✓	✓	No pupping BIA identified within the NWMR	No nursing BIA identified within the NWMR	Foraging (high density) in Ningaloo Marine Park and adjacent Commonwealth waters (March–July) Foraging northward from Ningaloo along the 200 m isobath (July – Nov).	
Green sawfish	✓	✓	-	Pupping in Cape Keraudren (pupping occurs in summer in a narrow area adjacent to shoreline) Pupping in Willie Creek Pupping in Roebuck Bay Pupping in Cape Leveque Pupping in waters adjacent to Eighty Mile Beach Pupping (likely) in Camden Sound.	Nursing in Cape Keraudren Nursing in waters adjacent to Eighty Mile Beach	Foraging in Cape Keraudren Foraging in Roebuck Bay Foraging in Cape Leveque Foraging in Camden Sound	
Largetooth (freshwater) sawfish	✓	√	-	Pupping in the mouth of the Fitzroy River (January to May) Roebuck Bay (Jan – May) Pupping likely in waters adjacent to Eighty Mile Beach	Nursing (likely) in King Sound Roebuck Bay (Jan – May)	Foraging in the mouth of the Fitzroy River (January to May) Foraging in King Sound Roebuck Bay (Jan – May) Foraging in waters adjacent to Eighty Mile Beach	
Dwarf sawfish	√	√	-	Pupping in King Sound Pupping in waters adjacent to Eighty Mile Beach	Nursing in King Sound Nursing waters adjacent to Eighty Mile Beach	Foraging in King Sound Foraging in Camden Sound Foraging in waters adjacent to Eighty Mile Beach	

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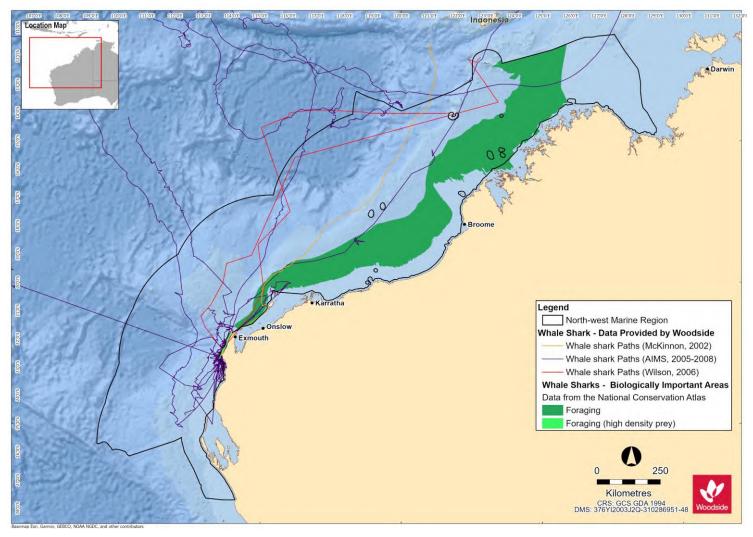


Figure 5-1 Whale shark BIAs for the NWMR and tagged whale shark tracks

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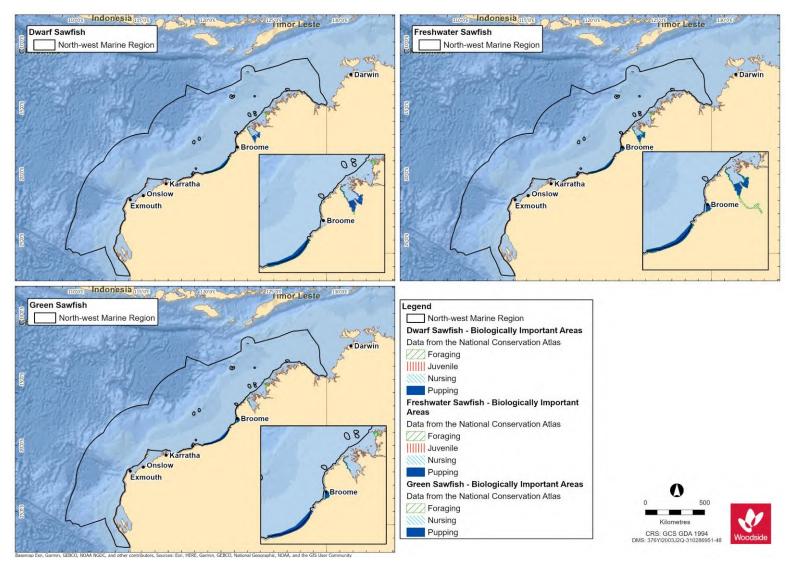


Figure 5-2 Sawfish BIAs for the NWMR

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5.4 Fish Assemblages of the NWMR

5.4.1 Regional Context for Fish Assemblages of NWMR

The NWMR contains a diverse range of fishes of tropical Indo-west Pacific affinity (Allen *et al.*, 1988). The region is characterised by the highest level of endemism and species diversity compared with other areas of the Australian continental slope. Last *et al.* (2005) recorded 1431 species from the three bioregions encompassing the continental slope, whilst also acknowledging some information gaps.

The NWMR is known for its demersal slope fish assemblages; the continental slope of the Timor Province and the North-west Transition supports more than 418 and 505 species of demersal fishes respectively, of which 64 are considered to be endemic. This is the second richest area for demersal fish species across the entire Australian continental slope. Conversely, the broad Southern Province, which covers most of southern Australia, supports 463 species, only 26 possibly being endemic. The continental slope demersal fish assemblages of the NWMR have been identified as a KEF (DEWHA, 2008), as described in **Section 9**.

The NWMR also features a diversity of pelagic fishes (those living in the pelagic zone) and benthopelagic fishes, including tuna, billfish, bramids, lutjanids, serranids and some sharks (DEWHA, 2007a). These species feed on salps and jellyfish, and more often on secondary consumers such as squid and bait fish. Water depth provides an indication of the level of interaction between pelagic and benthic communities within the NWMR; in waters deeper than 1000 m, for instance, the trophic system is pelagically-driven and benthic communities rely on particulates that fall to the seafloor (DEWHA, 2007a).

Pelagic fishes play an important ecological role within the NWMR; small pelagic fishes, such as lantern fish, inhabit a range of marine environments, including inshore and continental shelf waters and form a vital link in and between many of the region's trophic systems, feeding on pelagic phytoplankton and zooplankton and providing a food source for a wide variety of predators including large pelagic fishes, sharks, seabirds and marine mammals (Bulman, 2006; Mackie *et al.*, 2007). Large pelagic fishes, such as tuna, mackerel, swordfish, sailfish and marlin, are found mainly in oceanic waters and occasionally on the continental shelf (Brewer *et al.*, 2007). Both juvenile and adult phases of the large pelagic species are highly mobile and have a wide geographic distribution, although the juveniles more frequently inhabit warmer or coastal waters (DEWHA, 2008).

5.4.2 Listed Fish Species in the NWMR

The family Syngnathidae is a group of bony fishes that includes seahorses, pipefishes, pipehorses and seadragons. Along with syngnathids, members of the related Solenostomidae family (ghost pipefishes) are also found in the NWMR (DSEWPAC, 2012a).

There are 44 solenostomid and syngnathid species that are listed marine species that may occur within the NWMR, although no species is currently listed as threatened or migratory, according to the PMST report (**Appendix A**).

Syngnathids live in nearshore and inner shelf habitats, usually in shallow coastal waters, among seagrasses, mangroves, coral reefs, macroalgae dominated reefs, and sand or rubble habitats (Dawson, 1985; Lourie *et al.*, 1999, Lourie *et al.*, 2004; Vincent, 1996). Two species, the winged seahorse (*Hippocampus alatus*) and western pipehorse (*Solegnathus sp. 2*) have been identified in deeper waters of the NWMR (up to 200 m) (DSEWPAC, 2012a), however, these species were not identified by the Protected Matters search of the NWMR.

Knowledge about the distribution, abundance and ecology of both syngnathids and solenostomids in the NWMR is limited. No BIAs for syngnathids and solenostomids have been identified in the NWMR.

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5.4.3 Browse

The proposed Browse activity area includes biologically important habitat for the whale shark and three sawfish species:

- whale shark (foraging northward from Ningaloo along the 200 m isobath (July Nov),
- freshwater sawfish (pupping, nursing and foraging areas),
- green sawfish (pupping, nursing and foraging areas); and
- dwarf sawfish (pupping, nursing and foraging areas).

BIAs for the shark and sawfish species are outlined in Table 5-4 and Figure 5-1.

The proposed Browse activity area has partial overlap with the Continental slope demersal fish communities KEF.

5.4.4 NWS / Scarborough

The NWS / Scarborough activity area includes biologically important habitat for the whale shark and three sawfish species:

- whale shark (foraging northward from Ningaloo along the 200 m isobath (July Nov),
- freshwater sawfish (pupping, nursing and foraging areas),
- green sawfish (pupping, nursing and foraging areas); and
- dwarf sawfish (pupping, nursing and foraging areas).

BIAs for the whale shark and sawfish species are outlined in **Table 5-4** and **Figure 5-1**.

The NWS / Scarborough activity area has partial overlap with the Continental slope demersal fish communities KEF. The continental slope between North-west Cape and the Montebello Trough has more than 500 fish species, 76 of which are endemic, which makes it the most diverse slope bioregion in Australia (Last *et al.*, 2005).

5.4.5 North-west Cape

The North-west Cape activity area includes biologically important foraging habitat for the whale shark:

- whale shark, including:
 - Foraging (high density) in Ningaloo Marine Park and adjacent Commonwealth waters (March–July); and
 - Foraging northward from Ningaloo along the 200 m isobath (July Nov).

BIAs for the whale shark are outlined in **Table 5-4** and **Figure 5-1**.

The North-west Cape activity area coincides with part of the Continental slope demersal fish communities KEF.

6. MARINE REPTILES

6.1 Regional Context for Marine Reptiles

The NWMR contains important habitat for listed marine reptiles, including areas that support key life stages such as nesting, internesting, migration and foraging for marine turtle species, and habitats supporting resident sea snake and crocodile populations.

Six of the seven marine turtle species occur in Australian waters, and all six (the green turtle, hawksbill turtle, loggerhead turtle, flatback turtle, leatherback turtle and olive ridley turtle) occur in the NWMR and NMR.

There are 25 listed species of sea snake reported within or adjacent to the NWMR (Guinea, 2007a; Udyawer *et al.*, 2016), of which four are endemic to reef habitats in the remote parts of the region. Nineteen (19) listed sea snake species are known to occur in the NMR, as reported in the Protected Matters search (**Appendix A**).

There are significantly fewer marine reptile species that frequently occur within the SWMR and presently include three species of listed marine turtle and one sea snake species. Other species of sea snake may occur because of the southward-flowing Leeuwin Current, as vagrants in the region (DSEWPAC, 2012b).

The following sections focus on the listed marine reptile species known to occur within the NWMR.

Table 6-1 outlines the threatened and migratory marine reptile species that occur within the NWMR, with their conservation status and relevant recovery plans and/or conservation advice.

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Table 6-1 Marine reptile species identified by the EPBC Act PMST as potentially occurring within or utilising habitats in the NWMR for key life cycle stages

Species Name	Common Name	Environment Biodiversity Con			WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory
Humo		Threatened Status	Migratory Status	Listed	Conservation Status	mon amone
Caretta caretta	Loggerhead turtle	Endangered	Migratory	Marine	Endangered	
Chelonia mydas	Green turtle	Vulnerable	Migratory	Marine	Vulnerable	
Dermochelys coriacea	Leatherback turtle	Endangered	Migratory	Marine	Vulnerable	Recovery Plan for Marine Turtles in
Eretmochelys imbricata	Hawksbill turtle	Vulnerable	Migratory	Marine	Vulnerable	Australia 2017-2027 (Commonwealth of Australia, 2017)
Natator depressus	Flatback turtle	Vulnerable	Migratory	Marine	Vulnerable	
Lepidochelys olivacea	Olive ridley turtle	Endangered	Migratory	Marine	Vulnerable	
Aipysurus apraefrontalis	Short-nosed sea snake	Critically endangered	N/A	Marine	Critically endangered	Approved Conservation Advice for Aipysurus apraefrontalis (Short-nosed Sea Snake) (DSEWPAC, 2011a)
Aipysurus foliosquama	Leaf-scaled sea snake	Critically endangered	N/A	Marine	Critically endangered	Approved Conservation Advice for Aipysurus foliosquama (Leaf-scaled Sea Snake) (DSEWPAC, 2011b)
Crocodylus porosus	Salt-water crocodile	N/A	Migratory	Marine	Other protected fauna	N/A

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6.2 Marine Turtles in the NWMR

According to the Protected Matters search (**Appendix A**) six species of marine turtle known to occur within the NWMR are listed as threatened and migratory (three Vulnerable and three Endangered) under the EPBC Act—the green (*Chelonia mydas*), hawksbill (*Eretmochelys imbricata*), flatback (*Natator depressus*), loggerhead (*Caretta caretta*), leatherback (*Dermochelys coriacea*) and olive ridley (*Lepidochelys olivacea*) turtle (DSEWPAC, 2012a) (refer **Table 6-1**).

The NWMR supports globally significant breeding populations of four marine turtle species: the green, hawksbill, flatback and loggerhead turtle. Olive ridley turtles are known to forage within the NWMR, but there are only occasional records of the species nesting in the region. Leatherback turtles regularly forage over Australian continental shelf waters within the NWMR but there are also no records of the species nesting in the region (DSEWPAC, 2012a).

The six marine turtle species reported for the NWMR also occur within the NMR.

Three marine turtle species; the green, loggerhead, and leatherback turtle, have presumed feeding areas within the SWMR; however, no known nesting areas exist within the region (DSEWPAC, 2012b).

Discrete genetic stocks have evolved within each marine turtle species. This is the result of marine turtles returning to the location where they hatched. These genetically distinct stocks are defined by the presence of regional breeding aggregations. Stocks are composed of multiple rookeries in a region and are delineated by where there is little or no migration of individuals between nesting areas. Turtles from different stocks typically overlap at feeding grounds (Commonwealth of Australia, 2017). There are 17 genetic stocks across both the NWMR and NMR (nine in the NWMR, six in the NMR, and two overlapping both regions). Of these 17 genetic stocks, nine are known to occur within Woodside's three areas of activity (**Table 6-2**).

6.2.1 Life Cycle Stages

Marine turtles are highly migratory during non-reproductive life phases and have high site fidelity during breeding and nesting life phases. Majority of their lives are spent in the ocean, but the adult female marine turtles will come ashore to lay eggs in the sand above the high water mark on natal beaches (Commonwealth of Australia, 2017). **Figure 6-1** summarises the generalised life cycle of marine turtles. Species-specific life cycle information is outlined within the Recovery Plan for Marine Turtles of Australia (Commonwealth of Australia, 2017).

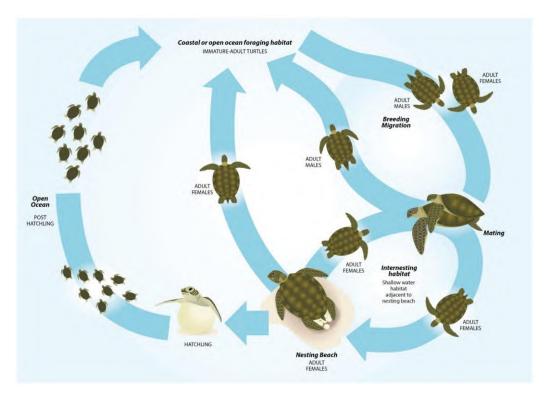


Figure 6-1 Generalised life cycle of marine turtles (Commonwealth of Australia, 2017)

6.2.2 Habitat Critical to Survival for Marine Turtles in the NWMR

The Recovery Plan for Marine Turtles of Australia (Commonwealth of Australia, 2017) identifies habitat critical to the survival of a species for marine turtle stocks under the EPBC Act. Habitat critical to survival is defined by the EPBC Act Significant Impact Guidelines 1.1 – Matters of National Environmental Significance as areas necessary:

- for activities such as foraging, breeding or dispersal;
- for the long-term maintenance of the species (including the maintenance of species essential to the survival of the species);
- to maintain genetic diversity and long term evolutionary development; and
- for the reintroduction of populations or recovery of the species.

The Recovery Plan for Marine Turtles of Australia (Commonwealth of Australia, 2017) has identified nesting locations and associated internesting areas as habitat critical to survival for four marine turtle species within the NWMR and these are identified, described and mapped in **Table 6-2** and **Figure 6-2**. No habitat critical to survival has been identified within the NWMR for olive ridley or leatherback turtles.

Table 6-2 outlines the relevant genetic stock, habitat critical to survival and key life cycle stage seasonality of the four species of marine turtles within the NWMR.

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Table 6-2 Genetic stock, habitat critical to survival and key life cycle stage seasonality of the four species of marine turtles within the NWMR

	Woodsi	de Activity	Area		Habitat Critical to S	urvival	
Species	Browse	NWS/S	NWC	Nesting (* Major Rookery¹)	Internesting Buffer	Seasonality- Nesting	Preferred Habitat ²
				Green Turtle			
NWS Stock (G-NWS)	✓	✓	✓	Adele Island Maret Island Cassini Island Lacepede Islands* Barrow Island* Montebello Islands (all with sandy beaches)* Serrurier Island Dampier Archipelago Thevenard Island Northwest Cape* Ningaloo coast	20 km radius	Nov-Mar	Nearshore reef habitats in the photic zone.
Ashmore Reef Stock (G-AR)	✓	-	-	Ashmore Reef* Cartier Reef*		All year (peak: Dec-Jan)	
Scott Reef-Browse Island Stock (G-ScBr)	✓	-	-	Scott Reef (Sandy Islet)* Browse Island*		Nov-Mar	
				Hawksbill Turtle	<u> </u>		
Western Australia Stock (H-WA)	-	1	-	Dampier Archipelago (including Rosemary Island and Delambre Island)* Montebello Islands (including Ah Chong Island, South East Island and Trimouille Island)* Lowendal Islands (including Varanus Island, Beacon Island and Bridled Island) Sholl Island	20 km radius	Oct-Feb	Nearshore and offshore reef habitats.

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	Woodsi	de Activity	Area	Habitat Critical to Survival				
Species	Browse	NWS/S	NWC	Nesting (* Major Rookery¹)	Internesting Buffer	Seasonality- Nesting	Preferred Habitat ²	
				Flatback Turtle				
Cape Domett Stock (F-CD)	√	-	-	Cape Domett* Lacrosse Island	60 km radius	All year (peak: Jul-Sep)	Nearshore and offshore sub-tidal and soft bottomed habitats of offshore islands.	
South-west Kimberley Stock (F-swKim)	-	✓	-	Eighty Mile Beach* Eco Beach* Lacepede Islands		Oct-Mar		
Pilbara Stock (F-Pil)	-	√	-	Montebello Islands Mundabullangana Beach* Barrow Island* Cemetery Beach Dampier Archipelago (including Delambre Island* and Huay Island) Coastal islands from Cape Preston to Locker Island		Oct-Mar		
Unknown genetic stock Kimberley, Western Australia	✓	✓	-	Maret Islands Montilivet Islands Cassini Island Coronation Islands (includes Lamarck Island) Napier-Broome Bay Islands (West Governor Island, Sir Graham Moore Island – near Kalumbaru) Champagny, Darcy and Augustus Islands (Camden Sound)		May-July		

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	Woodside Activity Area			Habitat Critical to Survival			
Species	Browse	NWS/S	NWC	Nesting (* Major Rookery¹)	Internesting Buffer	Seasonality- Nesting	Preferred Habitat ²
Loggerhead Turtle							
Western Australia Stock (LH-WA)	-	-	√	Dirk Hartog Island* Muiron Islands* Gnaraloo Bay* Ningaloo coast	20 km radius	Nov-May	Nearshore and island coral reefs, bays and estuaries in tropical and warm temperate latitudes.

¹ Major rookeries as outlined in the Recovery Plan (Commonwealth of Australia, 2017)

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² Preferred habitat as outlined in the Recovery Plan (Commonwealth of Australia, 2017)

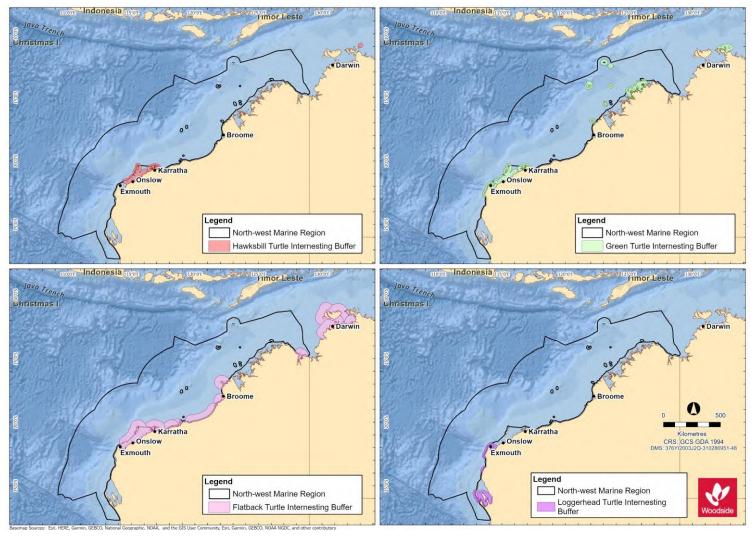


Figure 6-2 Marine turtle species habitat critical to survival (nesting beaches and internesting buffers) for the NWMR

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6.3 Marine Turtle Biological Important Areas in the NWMR

A review of the National Conservation Values Atlas (DAWE, 2020²) identified BIAs for the four marine turtle species that occur within the NWMR. These are described in **Table 6-3**. Note that nesting and internesting BIAs are not listed in **Table 6-3** as they are defined as in the Recovery Plan as habitat critical to survival for marine turtles nesting beaches and internesting areas (refer **Table 6-2**).

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² http://www.environment.gov.au/webgis-framework/apps/ncva/ncva.jsf

Table 6-3 Marine turtle BIAs within the NWMR

Species	Species Woodside Activity Area		BIAs			
	Browse	NWS/S	NWC	Mating	Foraging	Migration ³
Green turtle		✓	✓	No mating BIA identified within the NWMR.	Foraging inshore areas of Barrow Island Foraging at Montgomery Reef Foraging at Montebello Islands Foraging at Dixon Island Foraging around Ashmore Reef Foraging at Seringapatam Reef and Scott Reef Foraging in the De Grey River area to Bedout Island Foraging around the Islands between Cape Preston and Onslow and inshore of Barrow Island Foraging around Dampier Archipelago (islands to the west of the Burrup Peninsula) Foraging at Legendre Island and Huay Island Foraging around Delambre Island Foraging in the Joseph Bonaparte Gulf Foraging in waters adjacent to James Price Point	Green turtles can migrate more than 2600 km between their feeding and nesting grounds. Individual turtles foraging in the same area do not necessarily take the same migration route (Limpus et al., 1992). Ferreira et al. (2021) broadly identified two migratory corridors, one used by the NWS stock-Pilbara and another used by the NWS stock-Kimberley and the Scott-Browse stock with some overlap at the northern and southern extents respectively. This study showed that the foraging distribution of green turtles from two stocks in WA expands throughout north-west and northern Australian coastal waters, including the NT and Queensland.
Hawksbill turtle	✓	√	√	No mating BIA identified within the NWMR.	Foraging around the Lowendal Island group Foraging at Delambre Island Foraging around Dixon Island Foraging in the De Grey River area to Bedout Island Foraging around the islands between Cape Preston and	Individuals may migrate up to 2400 km between their nesting and foraging grounds (DSEWPAC, 2012a).

³ Migration BIA does not exist for Marine Turtles – general information provided.

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Species	Woodside Activity Species Area		BIAs			
•	Browse	NWS/S	NWC	Mating	Foraging	Migration ³
Flatback turtle	√	✓	-	Lacepede Islands Mating at Montebello Islands	Onslow and inshore of Barrow Island Foraging around the islands of the Dampier Archipelago (to the west of the Burrup Peninsula) Foraging at Ashmore Reef Foraging at the islands between Cape Preston and Onslow and	There is evidence that some flatback turtles undertake long-
				Mating at Dampier Archipelago (islands to the west of the Burrup Peninsula) Mating at Barrow Island A year-round internesting buffer biologically important area (BIA) of 80 km is located north and north-west of the Montebello Islands, extending 20 km further than the habitat critical to survival. However, use level for this BIA has been defined as very low (Commonwealth of Australia, 2017) and the habitat critical to survival internesting buffer is the legally recognised area of protection under the EPBC Act Significant Impact Guidelines 1.1 – Matters of National Environmental Significance Refer to the Marine Bioregional Plan for the Northwest Marine Region (DSEWPAC, 2012a) for locations of seasonal 80 km internesting buffer BIAs for flatback turtles	inshore of Barrow Island. Foraging at Montebello Islands Foraging at Dampier Archipelago (islands to the west of the Burrup Peninsula) Foraging at Legendre Island and Huay Island Foraging at Delambre Island Foraging in the Joseph Bonaparte Depression Foraging in waters adjacent to James Price Point	distance migrations between breeding and feeding grounds (Limpus et al., 1983). However, flatback turtles generally do not have a pelagic phase to their lifecycle. Instead, hatchlings grow to maturity in shallow coastal waters thought to be close to their natal beaches (DSEWPAC, 2012a).

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Species	Woodside Activity Area			BIAs		
·	Browse	NWS/S	NWC	Mating	Foraging	Migration ³
Loggerhead turtle	✓	✓	-	No mating BIA identified within the NWMR	Foraging in the De Grey River area to Bedout Island Foraging on the Western Joseph Bonaparte Depression Foraging in the waters adjacent to James Price Point	Adult loggerhead turtles dispersing from Dirk Hartog Island beaches (near Shark Bay) have remained within WA waters from southern WA to the Kimberley. Turtles dispersing from the Northwest Cape—Muiron Islands nesting area have ranged north as far as the Java Sea and the northwestern Gulf of Carpentaria, and to south-west WA (DSEWPAC, 2012).
Olive ridley turtle	1	√	-	No mating BIA identified within the NWMR	Foraging in the Western Joseph Bonaparte Depression and Gulf Foraging in the Dampier Archipelago (islands to the west of the Burrup Peninsula)	Migration routes and distances between nesting beaches and foraging areas are not known for Australian olive ridley turtles.

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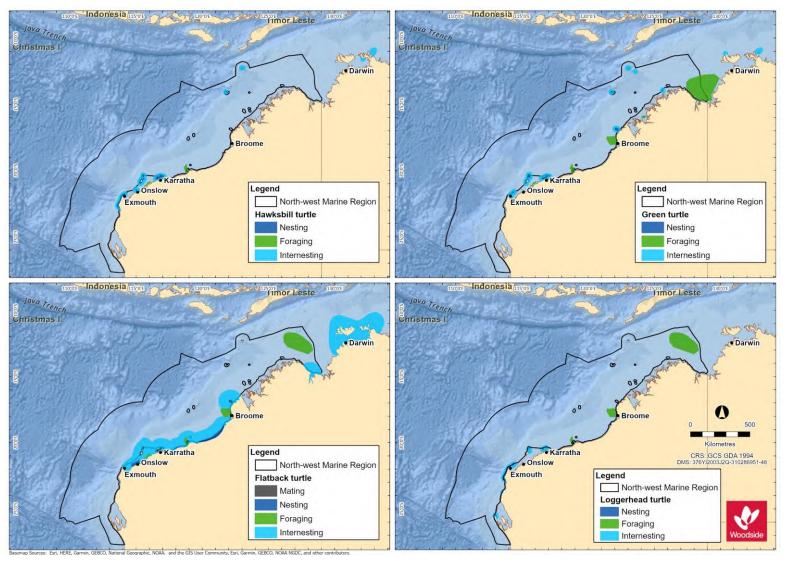


Figure 6-3 Marine turtle species BIAs within the NWMR

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6.4 Marine Turtle Summary for NWMR

Six of the seven marine turtle species occur within the Woodside activity areas. Across all three areas, globally significant breeding populations of four marine turtle species; the green, hawksbill, flatback and loggerhead turtle, have been recorded.

However, offshore waters do not represent biologically important habitat for marine turtles in any of the three Woodside activity areas. Isolated records of transient individuals (on post-nesting migration) are expected, but there is no evidence of important habitat or behaviours for marine turtles in offshore, open water environment of the NWS, in general.

6.4.1 **Browse**

The proposed Browse activity area includes major nesting areas that support globally significant breeding populations of two marine turtle species:

- the green turtle, including two distinct genetic stocks (Ashmore Reef and Scott Reef-Browse Island); and
- the flatback turtle, Cape Domett genetic stock.

Locations of habitat critical for each of the two species are outlined in Table 6-2 and Figure 6-2.

BIAs for the green and flatback turtle are outlined in **Table 6-3** and **Figure 6-3**.

Table 6-4 Marine turtle key information for Browse activity area

Species / Genetic Stock	Key Information							
Green Turtle								
Ashmore Reef Stock (G-AR)	The G-AR stock nests in a localised area of the Indian Ocean in the Ashmore Reef and Cartier Island AMP areas. Population estimates are not available for Ashmore Reef, although annual breeding numbers are thought to be in the low hundreds (Whiting, 2000). Designated habitat critical for the G-AR stock are the nesting locations of Ashmore Reef and Cartier Reef, and an internesting buffer of 20 km radius around these rookeries, year-round with peak internesting activity occurring December to January (refer Table 6 of the Recovery Plan). Juvenile and adult turtles forage within the tidal/sub-tidal habitats of offshore islands and coastal waters with coral reef, mangrove, sand, rocky reefs, and mudflats where there are algal turfs or seagrass meadows present (Commonwealth of Australia, 2017).							
Scott Reef-Browse Island Stock (G-ScBr)	The G-ScBr stock is a discrete unit known to nest at only two locations within the north-east Indian Ocean—Sandy Islet and Browse Island. There is currently very limited data available for the G-ScBr stock, therefore population numbers are not known. Designated habitat critical for the G-ScBr stock are the nesting locations of Sandy Islet and Browse Island, and an internesting buffer of 20 km radius around these rookeries, for the period November to March (refer Table 6 of the Recovery Plan). Surveys conducted at Scott Reef in 2006, 2008 and 2009 indicate that the summer months from late November to February are the preferred breeding season for green turtles at Sandy Islet (Guinea, 2009). Satellite tagging studies (Pendoley, 2005; Guinea, 2011) have provided an indication of the behaviour and migratory routes of adult green turtles leaving Scott Reef. Most animals appear to swim through South Reef lagoon and disperse toward the Western Australian mainland via two distinct post-nesting migration pathways; travelling east and north toward the Bonaparte Archipelago and then north along the coast to foraging areas in NT waters, or travelling south to Cape Leveque and then south along the coast to the Turtle Islands off the mouth of the De Grey River in the Pilbara region (Ferreira et al., 2021).							

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Species / Genetic Stock	Key Information
	Flatback Turtle
Cape Domett Stock (F-CD)	Cape Domett is an important high density nesting area. Combined with a smaller site at Lacrosse Island, the F-CD stock is one of the largest flatback turtle stocks in Australia. Average nesting abundance at Cape Domett is estimated at 3250 females per year (Whiting et al., 2008). Designated habitat critical for the F-CD stock are the nesting locations of Cape Domett and Lacrosse Island, and an internesting buffer of 60 km radius around these rookeries, year-round with peak internesting activity occurring July to September. Extending further than the habitat critical internesting buffer, an internesting buffer BIA of 80 km is located at Cape Domett and Lacrosse Island.

6.4.2 North-west Shelf / Scarborough

The NWS / Scarborough activity area includes major nesting areas that support globally significant breeding populations of three marine turtle species, representing four discreet genetic stocks:

- the green turtle, NWS genetic stock;
- the hawksbill turtle, WA genetic stock; and
- the flatback turtle, South-west Kimberley stock and Pilbara genetic stocks.

Locations of habitat critical for each of the four species are outlined in **Table 6-2** and **Figure 6-2**.

BIAs for the green, hawksbill, and flatback are outlined in **Table 6-3** and **Figure 6-3**.

Table 6-5 Marine turtle key information for NWS / Scarborough activity area

Species / Genetic Stock	Key Information
Green Turtle	
NWS Stock (G-NWS)	The G-NWS stock is one of the largest green turtle stocks in the world and the largest in the Indian Ocean. The G-NWS stock is estimated at approximately 20,000 individuals (DSEWPAC, 2012a) and the trend for the stock is reported as stable (Commonwealth of Australia, 2017). Major rookeries of the G-NWS stock within the NWS / Scarborough activity area are located at Barrow Island and the Montebello Islands. These areas are designated habitat critical for the stock and include an internesting buffer of 20 km radius around these rookeries, November to March.
Hawksbill Turtle	
Western Australia Stock (H-WA)	The H-WA stock is the largest in the Indian Ocean. The majority of the nesting for this stock is located in the Pilbara. The Dampier Archipelago has the largest nesting aggregation recorded. In particular, Rosemary Island supports the most significant hawksbill turtle rookery in the WA region and one of the largest in the Indian Ocean; approximately 500-1000 females nest on the island annually, more than at any other WA rookery (Pendoley, 2005; Pendoley <i>et al.</i> , 2016). Major rookeries of the H-WA stock within the NWS / Scarborough activity area are located at Rosemary Island, Delambre Island and the Montebello Islands. These areas are designated habitat critical for the stock and include an internesting buffer of 20 km radius around these rookeries, October to February.
Flatback Turtle	
South-west Kimberley Stock (F-swKim)	The genetic relationship between this nesting aggregation and the Cape Domett and Pilbara stocks is currently under review. Population numbers of the F-swKim stock are unknown. Major rookeries of the F-swKim stock are located at Eighty Mile Beach and Eco Beach. These areas are designated habitat critical for the stock and include an internesting buffer of 60 km radius around these rookeries, October to March.

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Key Information
The extent of genetic relatedness of flatback turtles along the WA coast is currently under review. Population numbers of the F-Pil stock are unknown. This stock nests on many islands in the Pilbara and southern Kimberley, with major rookeries at Mundabullangana Beach, Delambre Island and Barrow Island. These areas are designated habitat critical for the F-Pil stock and include an internesting buffer of 60 km radius around these rookeries, October to March. Extending further than the habitat critical internesting buffer, a year-round internesting buffer BIA of 80 km is located north and north-west of the Montebello Islands. However, use level for this BIA has been defined as very low (Commonwealth of Australia, 2017) and the habitat critical internesting buffer is the legally recognised area of protection under the EPBC Act Significant Impact Guidelines 1.1 – Matters of National Environmental Significance. Post-nesting satellite tracking indicates foraging occurs along the WA coast in water shallower than 130 m and within 315 km of shore (Commonwealth of Australia, 2017).

6.4.3 North-west Cape

The North-west Cape activity area includes major nesting areas that support globally significant breeding populations of two marine turtle species, representing two discreet genetic stocks:

- · the green turtle, NWS genetic stock; and
- the loggerhead turtle, Western Australia genetic stock.

Locations of habitat critical for each of the two species are outlined in Table 6-2 and Figure 6-2.

BIAs for the green and loggerhead turtles are outlined in **Table 6-3** and **Figure 6-3**.

A 2018 survey, including on-beach monitoring of the Muiron Islands and Ningaloo Coast from Northwest Cape to Bungelup (Rob *et al.*, 2019), supports the concept that North-west Cape and the Muiron Islands are major important nesting areas for green and loggerhead turtles, as identified in the Recovery Plan (Commonwealth of Australia, 2017).

Table 6-6 Marine turtle key information for North-west Cape activity area

Species / Genetic Stock	Key Information
Green Turtle	
NWS Stock (G-NWS)	The G-NWS stock is one of the largest green turtle stocks in the world and the largest in the Indian Ocean. The G-NWS stock is estimated at approximately 20,000 individuals (DSEWPAC, 2012a) and the trend for the stock is reported as stable (Commonwealth of Australia, 2017). There is one major rookery of the G-NWS stock located within the North-west Cape activity area. Located on the mainland coast of the North-west Cape, this area is designated habitat critical for the stock and includes an internesting buffer of 20 km radius around the rookery, November to March.
Loggerhead Turtle	
Western Australia Stock (LH-WA)	The LH-WA stock is one of the largest in the world (Limpus, 2009). The trend for the stock is reported as stable (Commonwealth of Australia, 2017). Major rookeries of the LH-WA stock are located at Dirk Hartog Island, Muiron Islands and Gnaraloo Bay. These areas are designated habitat critical for the stock and include an internesting buffer of 20 km radius around these rookeries, November to May. Dirk Hartog Island in the Shark Bay Marine Park, with an average of 122 nests per day over 2.1 km (Reinhold and Whiting, 2014), is recognised as the most important loggerhead turtle rookery in WA (Commonwealth of Australia, 2016; as cited in Rob et al., 2019).

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6.5 Sea Snakes

Sea snakes are commonly found in the NWMR and NMR, but less so in the SWMR, and occupy three broad habitat types: shallow water coral reef and seagrass habitats, deepwater soft bottom habitats away from reefs, and surface water pelagic habitats (Guinea, 2007a).

There are 25 listed species of sea snake reported within or adjacent to the NWMR (Guinea, 2007a; Udyawer *et al.*, 2016), of which four are endemic to reef habitats in the remote parts of the region:

- dusky sea snake (Aipysurus fuscus);
- large headed sea snake (Hydrophis pacificus);
- short-nosed sea snake (Aipysurus apraefrontalis); and
- leaf-scaled sea snake (Aipysurus foliosquama).

The short-nosed sea snake and the leaf-scaled sea snake are listed threatened species (Critically Endangered) under the EPBC Act (Table 6-7).

There is currently limited knowledge about the ranges and distribution patterns of sea snake species in the NWMR, in addition to a lack of understanding of population status and threats. Recent findings of *A. apraefrontalis* and *A. foliosquama* in locations outside of their previously defined ranges have highlighted the lack of information on species distributions in the NWMR (Udyawer *et al.*, 2016). Udyawer *et al.* (2020) used a correlative modelling approach to understand habitat associations and identify suitable habitats for five sea snake species (*A. apraefrontalis, A. foliosquama, A. fuscus, A. l. pooleorum* and *A. tenuis*). Species-specific habitat suitability was modelled across 804,244 km² of coastal waters along the NWS, and the resulting habitat suitability maps enabled the identification of key locations of suitable habitat for these five species (refer **Table 6-6**).

No habitat critical to survival or BIAs for sea snake species have been identified in the NWMR. While the Ashmore Reef and Cartier Island AMPs have been recognised for their high diversity and density of sea snakes (DSEWPAC, 2012a), surveys have revealed a steep decline in sea snake numbers at Ashmore Reef (Guinea, 2007b; Lukoschek *et al.*, 2013). Leaf-scaled and short-nosed sea snakes have been absent from surveys at Ashmore Reef since 2001, despite an increase in survey intensity (Guinea, 2006, 2007b; Guinea and Whiting, 2005; Lukoschek *et al.*, 2013). The reason for the decline is unknown.

Table 6-7 Information on the two threatened sea snake species within the NWMR

Species	Preferred Habitat and Diet	Habitat Location
Short-nosed sea snake	Preferred habitat: Primarily on the reef flats or in shallow waters of the outer reef edges to depths of 10 m (Minton <i>et al.</i> , 1975). Typically, movement is restricted to within 50 m of reef flat habitat (Guinea and Whiting, 2005). Diet: Primarily fishes and eels.	The short-nosed sea snake has been recorded from Exmouth Gulf to the reefs of the Sahul Shelf, although most records come from Ashmore and Hibernia reefs (Guinea and Whiting, 2005). Key locations of suitable habitat: Ashmore Reef, Exmouth Gulf, Muiron Islands, Montebello Islands (Udyawer et al., 2020).
Leaf-scaled sea snake	Preferred habitat: The leaf-scaled sea snake occurs in shallow protected areas of reef flats, typically in water depth less than 10 m. Diet: Primarily shallow water coral-associated wrasse, gudgeons, clinids and eels (McCosker, 1975; Voris, 1972; Voris and Voris, 1983)	The leaf-scaled sea snake has only been recorded at Ashmore and Hibernia reefs (Guinea and Whiting, 2005), indicating it has a very limited distribution. Key locations of suitable habitat: Ashmore Reef, Shark Bay, Exmouth Gulf, Barrow Island and Montebello Islands (Udyawer et al., 2020).

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6.6 Crocodiles

The salt-water crocodile (*Crocodylus porosus*) is a listed migratory species under the EPBC Act known to occur within the NWMR. The species is found in most major river systems of the Kimberley, including the Ord, Patrick, Forrest, Durack, King, Pentecost, Prince Regent, Lawley, Mitchell, Hunter, Roe and Glenelg rivers. The largest populations occur in the rivers draining into the Cambridge Gulf and the Prince Regent River and Roe River systems. There have also been isolated records in rivers of the Pilbara region, around Derby near Broome and as far south as Carnarvon on the mid-west coast.

No BIAs for salt-water crocodile have been identified in the NWMR.

7. MARINE MAMMALS

7.1 Regional Context

The offshore waters of WA include important habitat for marine mammals, including areas that support key life stages such as breeding, foraging, and migration. Of the 45 species of cetacean occurring in Australian waters, 27 species occur regularly in the waters of the NWMR, nine species in the waters of the NMR and 33 species in the SWMR. The waters of the NWMR and the NMR also support significant populations of dugong (DSEWPAC, 2012a, c).

The NWMR is an important migratory pathway between feeding grounds in the Southern Ocean and breeding grounds in tropical waters of the NWMR for several cetacean species (DSEWPAC, 2012a). Numerous large mysticetes (baleen whale) species, in particular the humpback whale, are known to utilise the region for migration and calving, and the pygmy blue whale for foraging and as a migration pathway between southern feeding and northern breeding/feeding areas, north of the equator.

The SWMR is an important area for numerous marine mammal species including pinniped species, large, migratory whale species and resident coastal whale and dolphin species (DSEWPAC, 2012b).

The NMR and adjacent areas are important for several species of cetacean, particularly inshore dolphin species. These species, and other marine mammals, rely on the waters of the NMR and adjacent coastal areas for breeding and foraging. However, there is little knowledge of the seasonal movements, migrations and breeding seasonality for many of the marine mammal species in the NMR due to lack of extensive surveys (DSEWPAC, 2012c).

Table 7-1 outlines the threatened and migratory marine mammal species that may occur within the NWMR, with their conservation status and relevant recovery plans and/or conservation advice.

Table 7-1 Marine mammal species identified by the EPBC Act PMST as occurring within the NWMR

Species Name	Common Name		rotection and Bio ervation Act 1999	diversity	WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory Instrument	
		Threatened Status	Migratory Status	Listed	Conservation Status	- motiument	
		·	Cetaceans - N	ysticeti			
Balaenoptera musculus	Blue whale	Endangered	Migratory	Cetacean	Endangered	Conservation Management Plan for the Blue Whale - A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999 2015-2025 (Commonwealth of Australia, 2015a)	
Eubalaena australis	Southern right whale	Endangered	Migratory	Cetacean	Vulnerable	Conservation Management Plan for the Southern Right Whale: A Recovery Plan under the <i>Environment Protection and Biodiversity</i> <i>Conservation Act 1999</i> 2011-2021 (DSEWPAC, 2012d)	
Balaenoptera borealis	Sei whale	Vulnerable	Migratory	Cetacean	Endangered	Conservation Advice <i>Balaenoptera borealis</i> sei whale (Threatened Species Scientific Committee, 2015a)	
Megaptera novaeangliae	Humpback whale	Vulnerable	Migratory	Cetacean	Conservation dependent	Conservation Advice <i>Megaptera novaeangliae</i> humpback whale (Threatened Species Scientific Committee, 2015b)	
Balaenoptera physalus	Fin whale	Vulnerable	Migratory	Cetacean	Endangered	Conservation Advice Balaenoptera physalus fin whale (Threatened Species Scientific Committee, 2015c)	
Balaenoptera edeni	Bryde's whale	N/A	Migratory	Cetacean	N/A	N/A	
Balaenoptera bonaerensis	Antarctic minke whale	N/A	Migratory	Cetacean	N/A	N/A	
			Cetaceans - O	dontoceti			
Physeter macrocephalus	Sperm whale	N/A	Migratory	Cetacean	Vulnerable	N/A	
Orcinus orca	Killer whale	N/A	Migratory	Cetacean	N/A	N/A	
Orcaella heinsohni	Australian snubfin dolphin	N/A	Migratory	Cetacean	Priority	N/A	
Sousa chinensis	Indo-Pacific humpback dolphin	N/A	Migratory	Cetacean	Priority	N/A	

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Species Name	Common Name	Environment Protection and Biodiversity Conservation Act 1999			WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory Instrument	
		Threatened Status	Migratory Status	Listed	Conservation Status	moti dinone	
Tursiops aduncus	Spotted bottlenose dolphin (Arafura/Timor Sea populations)	N/A	Migratory	Cetacean	N/A	N/A	
			Sirenians and F	Pinnipeds			
Dugong dugon	Dugong	N/A	Migratory	Marine	Other protected fauna	N/A	
Neophoca cinerea	Australian sea lion	Endangered	N/A	Marine	Vulnerable	Recovery Plan for the Australian Sea Lion (Neophoca cinerea) 2013 (DSEWPAC, 2013a) Conservation Advice Neophoca cinerea Australian Sea Lion (Threatened Species Scientific Committee, 2020a) (in effect under the EPBC Act from 23-Dec-2020)	

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7.2 Cetaceans in the NWMR

Cetaceans are generally widely distributed and highly mobile. In general, distribution patterns reflect seasonal feeding areas, characterised by high productivity, and migration routes associated with reproductive patterns. The NWMR is thought to be an important migratory pathway between feeding grounds in the Southern Ocean and breeding grounds in tropical waters for several cetacean species (DSEWPAC, 2012a).

From the Protected Matters search, 34 EPBC Act listed species were recorded as potentially occurring or having habitat within the NWMR (**Appendix A**). Of those, 12 cetacean species are listed as threatened and/or migratory, including baleen whales, toothed whales and dolphins that occur within the NWMR (**Table 7-2**).

7.3 Dugongs in the NWMR

The dugong is listed as migratory under the EPBC Act. Dugongs inhabit seagrass meadows in coastal waters, estuarine creeks and streams, and reef systems (DSEWPAC, 2012a).

Some of the coastal waters adjacent to the NWMR support significant populations of dugongs, including Shark Bay, Exmouth Gulf, in and adjacent to Ningaloo Reef, in coastal waters along the Kimberley coast, and on the edge of the continental shelf at Ashmore Reef (DEWHA, 2008).

Although the patterns of dugong movement in WA are not well understood, it is thought that dugongs move in response to availability of seagrass (Marsh *et al.*, 1994; Preen *et al.*, 1997) and water temperature.

There are a number of BIAs for dugong within and adjacent to waters of the NWMR (refer **Section 7.5**).

7.4 Pinnipeds in the NWMR

The Australian sea lion is listed as a species that may occur, or may have habitat within the NWMR (Protected Matters search - **Appendix A**). It is included here as the Australian sea lion is the only pinniped endemic to Australia (Strahan, 1983) and has been recorded within the southern extent of the NWMR at Shark Bay, WA (Kirkwood *et al.*, 1992). The most northern known breeding colony is at the Houtman Abrolhos Islands in the SWMR. The Australian sea lion's breeding range extends from the Houtman Abrolhos Islands, WA to The Pages Island, east of Kangaroo Island, SA. The Australian sea lion was listed as endangered in 2020 (Threatened Species Scientific Committee, 2020a). An assessment of the status and trends in abundance of this endemic, coastal pinniped species (Goldsworthy *et al.* 2021) documented an overall reduction in pup abundance over three generations, providing strong evidence that the species meets IUCN endangered criteria.

There are no BIAs for the Australian sea lion in the NWMR.

Table 7-2 Information on the threatened/migratory marine mammal species within the NWMR

Species	Key Information
	Baleen whales (Mysticeti)
Humpback whale	In Australian waters two genetically distinct populations migrate annually along the west (Group IV) and east coasts (Group V) between May and November. In WA, the migration pathway for the Group IV population (also known as Breeding Stock D) extends from Albany to the Kimberley coastline, passing through the NWMR (Threatened Species Scientific Committee, 2015b). Since the 1982 moratorium on commercial whaling population numbers have recovered significantly; from approximately 2000 to 3000 individuals in 1991, to between 19,200–33,850 individuals in 2008 (Bannister and Hedley, 2001; Bejder et al., 2019; Hedley et al., 2011). Aerial surveys off the WA coast undertaken between 2000 and 2008 produced a population estimate for the Group IV population of 26,100 individuals (CI 20,152–33,272) in 2008 (Salgado Kent et al., 2012). Current population growth for the Group IV population is estimated to be between 9.7 and 13% per annum (Threatened Species Scientific Committee, 2015b). Using the Salago-Kent et al. (2012) estimate of 26,100 individuals and an annual population growth rate of ~10%, current population size could be in excess of 75,000 individuals (Woodside, 2019). The Group IV population migrates northward from their Antarctic feeding grounds around May each year, reaching the NWMR around early June. The southward migration subsequently starts in mid-September, around the time of breeding and calving (typically August to September) (Threatened Species Scientific Committee, 2015b). Within the NWMR there are key calving areas between Broome and the northern end of Camden Sound, and resting areas in the southern Kimberley region, Exmouth Gulf and Shark Bay. In particular, high numbers of humpback whales are observed in Camden Sound and Pender Bay from June to September each year (Threatened Species Scientific Committee, 2015b). There are reports of neonates further south, suggesting that the calving areas may be poorly defined. Aerial photogrammetric surveys in 2013 and 2015 recorded large numbers of humpback wh
Blue whale	There are two recognised sub-species of blue whale in the Southern Hemisphere, both of which are recorded in Australian waters. These are the southern (or 'true') blue whale (<i>Balaenoptera musculus</i>) and the 'pygmy' blue whale (<i>Balaenoptera musculus brevicauda</i>) (Commonwealth of Australia, 2015a). In general, southern blue whales occur in waters south of 60°S and pygmy blue whales occur in waters north of 55°S (i.e. not in the Antarctic). On this basis, nearly all blue whales sighted in the NWMR are likely to be pygmy blue whales. The East Indian Ocean (EIO) pygmy blue whale population is seasonally distributed from Indonesia (a potential breeding ground) to south-west of Australia and east across the Great Australian Bight and Bonney Upwelling to beyond the Bass Strait (Blue Planet Marine, 2020). Migration seems to be variable, with some individuals appearing as resident to areas of high productivity and others undertaking migrations across long distances (Commonwealth of Australia, 2015a). McCauley <i>et al.</i> (2018) describe three migratory stages around Australia for the EIO pygmy blue whale population: a 'southbound migratory stage' where whales travel southwards from Indonesian waters offshore from the WA coastline, mostly from October to December but possibly into January of the following year; a protracted 'southern Australian stage' (January to June) where animals spread across southern waters of the Indian Ocean and south of Australia; and a 'northbound migratory stage' (April to August) where animals travel north back to Indonesia again. There are currently insufficient data to accurately estimate population numbers of the pygmy blue whale in Australian waters (Blue Planet Marine, 2020; Commonwealth of Australia, 2015a). There are, however, two estimates of population size of the EIO pygmy blue whale for WA. McCauley and Jenner (2010) calculated the population to be between 662 and 1559 individuals in 2004 based on passive acoustics (whale vocalisations), and Jenner <i>et al.</i> (2008) (based on photogra

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Species	Key Information
	travelling further west into the Indian Ocean (McCauley <i>et al.</i> , 2018). More recent passive acoustic data estimates a 4.3% growth rate that applies to the proportion of EIO pygmy blue whales seasonally present in offshore water of the south-eastern Australia and may not reflect the full population but does imply an increasing population (McCauley <i>et al.</i> , 2018).
	The pygmy blue whale is typically present in the Perth Canyon from November to June, with an observed peak between March and May (Commonwealth of Australia, 2015a; Blue Planet Marine, 2020). The pygmy blue whale feeds in the Perth Canyon at depths of 200 to 300 m, which overlaps the typical distribution of krill (200–500 m water depth (day) to surface (night) (McCauley et al., 2004; Commonwealth of Australia, 2015a). Other possible feeding grounds off the WA coast include the wider area around the Perth Canyon, and possible foraging areas off the Ningaloo Coast and at Scott Reef (Commonwealth of Australia, 2015a).
	Refer Table 7-3 and Figure 7-2 for the location and type of BIAs for blue whales in the NWMR. There is a migratory BIA for the pygmy blue whale within WA waters, which extends for most of the length of the NWMR within offshore waters.
Bryde's whale	The Bryde's whale is the least migratory of its genus and is restricted geographically from the equator to approximately 40°N and S, or the 20° isotherm (Bannister <i>et al.</i> , 1996). The species is known to exhibit inshore and offshore forms in other international locations that vary in morphology and migratory behaviours (Bannister <i>et al.</i> , 1996). This appears to also be the case within Australian waters. Bryde's whales have been identified as occurring in both oceanic and inshore waters, with the only key localities recognised in WA being in the Houtman Abrolhos Islands and north of Shark Bay (Bannister <i>et al.</i> , 1996). Data suggests offshore whales migrate seasonally, heading towards warmer tropical waters during the winter; however, information about migration within the NWMR is not well known (McCauley and Duncan, 2011). McCauley (2011) detected Bryde's whales using acoustic loggers deployed in and around Scott Reef from 2006 to 2009. Other acoustic logger data of Bryde's whale vocalisations recorded between Ningaloo and north of Darwin showed no apparent trends or seasonality (McCauley, 2011). There are no identified BIAs for this species in the National Conservation Values Atlas.
Southern right whale	The southern right whale occurs primarily in waters between about 20°S and 60°S and moves from high latitude feeding grounds in summer to warmer, low latitude, coastal locations in winter (Bannister <i>et al.</i> , 1996). Southern right whales aggregate in calving areas along the south coast of WA outside of the NWMR. However, there have been sightings in waters of the NWMR as far north as Ningaloo (Bannister and Hedley, 2001), and a stranding record exists for the far north Kimberley coast (ALA, 2020). Southern right whale calving grounds are found at mid to lower latitudes and are occupied during the austral winter and early-mid spring. They are regularly present on the southern Australian coast from about mid-May to mid-November, and peak periods for mating are from mid-July through August. Mating occurs within these breeding grounds as evidenced by many observations of intromission and mating behaviours. Southern right whales in south-western Australia appear to be increasing at the maximum biological rate but there is limited evidence of increase in south-eastern Australian waters (DSEWPAC, 2012d). There are no identified BIAs for this species in the NWMR.
Antarctic minke whale	The Antarctic minke whale is distributed worldwide and has been recorded off all Australian states (but not in the NT), feeding in cold waters and migrating to warmer waters to breed. It is thought that the Antarctic minke whale migrates up the WA coast to about 20°S to feed and possibly breed (Bannister <i>et al.</i> , 1996); however, detailed information about timing and location of migrations and breeding grounds within the NWMR is not well known. In the high latitudinal winter breeding grounds in other regions, the species appears to be distributed off the continental shelf edge. No population estimates are available for Antarctic minke whales in Australian waters. There are no identified BIAs for this species in the National Conservation Values Atlas.
Sei whale	The sei whale is a baleen whale with a worldwide oceanic distribution and is expected to seasonally migrate between low latitude wintering areas and high latitude summer feeding grounds (Bannister <i>et al.</i> , 1996; Prieto <i>et al.</i> , 2012). There are no known mating or calving areas in Australian waters. The species has a preference for deep waters, typically occurs in oceanic basins and continental slopes (Prieto <i>et al.</i> , 2012), and exhibits a migration pathway influenced by seasonal feeding and breeding patterns. Sei whales have been infrequently recorded in Australian waters (Bannister <i>et al.</i> , 1996). Reliable estimates of the sei whale population size in Australian waters are currently not possible due to a lack of dedicated surveys and their elusive characteristics. Similarly, the extent of occurrence and area of occupancy of sei whales in Australian waters cannot be calculated due to the

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Species	Key Information
	rarity of sighting records. They will typically travel in small pods of three to five individuals, with some segregation by age, sex and reproductive status. Calving grounds are presumed to exist in low latitudes with mating and calving potentially occurring during winter months (Threatened Species Scientific Committee, 2015a). There are no known mating or calving areas in Australian waters, and there are no identified BIAs for this species in the National Conservation Values
	Atlas.
Fin whale	The fin whale is a large baleen whale distributed worldwide. Fin whales migrate annually between high latitude summer feeding grounds and lower latitude over-wintering areas (Bannister <i>et al.</i> , 1996) and follow oceanic migration paths. The species is uncommonly encountered in coastal or continental shelf waters. Australian Antarctic waters are important feeding grounds for fin whales but there are no known mating or calving areas in Australian waters (Morrice <i>et al.</i> , 2004). The species has been observed in groups of six to 10 individuals, as well as in pairs and alone (Threatened Species Scientific Committee, 2015c). Accurate distribution patterns are not known within Australian waters and the majority of data are from stranding events.
	Fin whales have been recorded vocalising off the Perth Canyon, WA, between January and April 2000 (McCauley <i>et al.</i> , 2000). It is currently not possible to accurately estimate the population size of fin whales in Australian waters predominantly due to the species' behaviour and local ecology, as the proportion of time they spend at the surface varies greatly depending on these factors. In addition, natural fluctuations of fin whales in Australian waters are unknown; however, long-range movements do appear to be prey-related. A recent study by Aulich <i>et al.</i> (2019) used passive acoustic monitoring as a tool to identify the migratory movements of fin whales in Australian waters. On the west coast, the earliest arrival of these animals occurred at Cape Leeuwin in April, and between May and October they migrated along the WA coastline to the Perth Canyon, which likely acts as a way-station for feeding (Aulich <i>et al.</i> , 2019). Some whales were found to continue migrating as far north as Dampier (Aulich <i>et al.</i> , 2019). There are no identified BIAs for this species in the National Conservation Values Atlas.
	Toothed whales (Odontoceti)
Sperm whale	Sperm whales are the largest of the toothed whales and are distributed worldwide in deep waters (greater than 200 m) off continental shelves and sometimes near shelf edges (Bannister <i>et al.</i> , 1996). The species tends to inhabit offshore areas at depths of 600 m or more and is uncommon in waters less than 300 m deep (Ceccarelli <i>et al.</i> , 2011). There is limited information about sperm whale distribution in Australian waters, however, they are usually found in deep offshore waters, with more dense populations close to continental shelves and canyons. In the open ocean, there is a generalised movement of sperm whales southwards in summer, and corresponding movement northwards in winter, particularly for males. Detailed information about the distribution and migration patterns of sperm whales off the WA coast is not available. Females with young may reside within the NWMR all year round, males may migrate through the region and the species may be associated with canyon habitats (Ceccarelli <i>et al.</i> , 2011). Sperm whales have been recorded in deep waters off North-west Cape and appear to occasionally venture into shallower waters in other areas. Twenty-three (23) sightings of sperm whales (variable pod sizes, ranging from one to six animals) were recorded by marine mammal observers (MMOs) during the North West Cape MC3D marine seismic survey (December 2016 to April 2017) (Woodside, 2020). These animals were observed in deep, continental slope waters of the Montebello Saddle (maximum distance of approximately 90 km from North-west Cape), and the waters overlying the Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula KEF. The deep waters above the gully/saddle on the inner edge of the plateau (the Montebello Saddle) are thought to be important for sperm whales that may feed in the region (based on 19 th Century whaling records; Townsend,
	1935). There are no identified BIAs for this species in the NWMR.
Killer whale	The preferred habitat of killer whales includes oceanic, pelagic and neritic (relatively shallow waters over the continental shelf) regions, in both warm and cold waters. Killer whales appear to be more common in cold, deep waters; however, they have been observed along the continental slope and shelf, particularly near seal colonies, as well as in shallow coastal areas of WA (Bannister <i>et al.</i> , 1996; Thiele and Gill, 1999). The total number of killer whales in Australian waters is unknown, however, it may be that the total number of mature animals within waters around the continent is less than 10,000. Killer whales are known to make seasonal movements, and probably follow regular migratory routes, but no information is available for the

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Species	Key Information
	species in Australian waters. Killer whales are top-level carnivores, and there are reports from around Australia of attacks on dolphins, juvenile humpback whales, blue whales, sperm whales, dugongs and Australian sea lions (Bannister <i>et al.</i> , 1996). Killer whales are known to target humpback whales, particularly calves, off Ningaloo Reef during the humpback southern migration season (Pitman <i>et al.</i> , 2015). Overall, observations suggest that humpback calves are a predictable, plentiful, and readily taken prey source for killer whales off Ningaloo Reef for at least five months of the year. Additionally, there are records of killer whales attacking dugongs in Shark Bay (Anderson and Prince, 1985). However, there are no recognised key localities or important habitats for killer whales within the NWMR (DSEWPAC, 2012a). There are no identified BIAs for this species in the NWMR.
Australian snubfin dolphin	Stranding and museum specimen records indicate that Australian snubfin dolphins occur only in waters off northern Australia, from approximately Broome on the west coast to the Brisbane River on the east coast (Parra <i>et al.</i> , 2002). Aerial and boat-based surveys indicate that Australian snubfin dolphins occur mostly in protected shallow waters close to the coast, and close to river and creek mouths (Parra, 2006; Parra <i>et al.</i> , 2006; Parra <i>et al.</i> , 2002). Within the NWMR, species has been found in the shallow coastal waters and estuaries along the Kimberley coast. Beagle and Pender bays on the Dampier Peninsula, and tidal creeks around Yampi Sound and between Kuri Bay and Cape Londonderry are important areas for Australian snubfin dolphins (DEWHA, 2008). Roebuck Bay has generally been considered the south-western limit of snubfin dolphin distribution across northern Australia, but the species has been recorded in Port Hedland harbour, the Dampier Archipelago, Montebello Islands, Exmouth Gulf and off North-west Cape (Allen <i>et al.</i> , 2012). A first comprehensive catalogue of snubfin dolphin sightings has been compiled for the Kimberley, north-west Western Australia (Bouchet <i>et al.</i> 2021) and documented that snubfin dolphins are consistently encountered in shallow water (<21 m depth) close to (<15 km) freshwater inputs with high detection rates in known hotspots such as Roebuck Bay and Cygnet Bay as well as suitable coastal habitat in the wider Kimberley region. Refer Table 7-3 and Figure 7-3 for the location and type of BIAs for Australian snubfin dolphins in the NWMR.
Indo-Pacific humpback dolphin (Australian humpback dolphin)	Previously included with <i>Sousa chinensis</i> , the Australian humpback dolphin (<i>S. sahulensis</i>) was elevated to a species in 2014. <i>S. chinensis</i> is now applied for humpback dolphins in the eastern Indian and western Pacific Oceans and <i>S. sahulensis</i> for humpback dolphins in the waters of the Sahul Shelf from northern Australia to southern New Guinea (Jefferson and Rosenbaum, 2014). The Australian humpback dolphin is listed as <i>S. chinensis</i> under EPBC Act. The Australian humpback dolphin (referred to as 'humpback dolphin' hereafter) inhabits the tropical/subtropical waters of the Sahul Shelf across northern Australia and southern Papua New Guinea (Jefferson and Rosenbaum, 2014). Based on historical stranding data, museum specimens and opportunistic sightings collected during aerial and boat-based surveys for other fauna it has been inferred that humpback dolphins occur from the WA/NT border south-west to Shark Bay (Hanf <i>et al.</i> , 2016). Allen <i>et al.</i> (2012) suggested that humpback dolphins use a range of inshore habitats, including both clear and turbid coastal waters across northern WA. The waters surrounding North-west Cape are an important area for the species. Boat-based surveys up to 5 km out from the coast (Brown <i>et al.</i> , 2012) recorded humpback dolphins from 0.3 to 4.5 km away from shore and in depths ranging from 1.2 to 20 m, with a mean of ~8 m. Other studies around North-west Cape, surveying waters up to 5 km from the coast, recorded humpback dolphins in water depths of up to 40 m (Hanf <i>et al.</i> , 2016). Based on density, site fidelity and residence patterns, North-west Cape is clearly an important habitat toward the south-western limit of this species' range (Hunt <i>et al.</i> , 2017). Aerial surveys targeting dugongs over the western Pilbara have recorded humpback dolphins more than 60 km from the mainland in shallow shelf waters (i.e. <30 m deep) near Barrow Island and the western Lowendal Islands (Hanf, 2015). The species has also been recorded in fringing coral reef and shallow, sheltered sandy lag
Indo-Pacific bottlenose dolphin (Spotted bottlenose dolphin)	There are four known sub-populations of spotted bottlenose dolphins, of which the Arafura/Timor Sea populations were identified as potentially occurring within the NWMR. The species is restricted to inshore areas such as bays and estuaries, nearshore waters, open coast environments, and shallow offshore waters including coastal areas around oceanic islands, from Shark Bay to the western edge of the Gulf of Carpentaria. The species

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Species	Key Information
	forages in a range of habitats but is generally restricted to water depths of less than 200 m (DSEWPAC, 2012a). Important foraging/breeding areas include the shallow coastal waters and estuaries along the Kimberley coast and Roebuck Bay. Refer Table 7-3 the location and type of BIAs for spotted bottlenose dolphins in the NWMR.
	Sirenians
Dugong	Dugongs are distributed along the WA coast throughout the Gascoyne, Pilbara and Kimberley. Specific areas supporting dugong populations include: Shark Bay; Ningaloo and Exmouth Gulf; the Pilbara coast (Exmouth Gulf to De Grey River [Marsh <i>et al.</i> , 2002]); and Eighty Mile Beach and the Kimberley coast, including Roebuck Bay (Brown <i>et al.</i> , 2014). Dugong distribution is correlated with the seagrass habitats upon which it feeds, although water temperature has also been correlated with dugong movements and distribution (Preen <i>et al.</i> , 1997; Preen, 2004). Dugongs are known to migrate between seagrass habitats (hundreds of kilometres) (Sheppard <i>et al.</i> , 2006), and in Shark Bay they exhibit seasonal movements as a behavioural thermoregulatory response to winter water temperatures (Holley <i>et al.</i> , 2006; Marsh <i>et al.</i> , 2011). Aerial surveys since the mid-1980s indicate that dugong populations are now stable at a regional scale in Shark Bay and in the Exmouth/Ningaloo Reef. Refer Table 7-3 and Figure 7-5 for the location and type of BIAs for dugong in the NWMR.
	Pinnipeds
Australian sea lion	The Australian sea lion is the only endemic pinniped (true seals, fur seals and sea lions) in Australian waters. It is a member of the Otariidae (eared seals) family. The birth interval in Australian sea lions is around 17–18 months. The Australian sea lion is unique among pinnipeds in being the only species that has a non-annual breeding cycle that is also temporally asynchronous across its range (DSEWPAC, 2013a; Threatened Species Scientific Committee, 2020a). This means the breeding period (copulation and birthing) in one colony will occur at different times to breeding in another colony. The Australian sea lion is considered to be a specialised benthic forager—that is, it feeds primarily on the sea floor. Studies have shown that the species will eat a range of prey, including fish, cephalopods (squid, cuttlefish and octopus), sharks, rays, rock lobsters and penguins (DSEWPAC, 2013a; Threatened Species Scientific Committee, 2020a). The Australian sea lion feeds on the continental shelf, most commonly in depths of 20–100 m, and they typically travel up to about 60 km from their colony on each foraging trip, with a maximum distance of around 190 km when over shelf waters. The current breeding distribution of the Australian sea lion extends from the Houtman Abrolhos Islands on the west coast of WA to the Pages Islands in SA. Sites for the 58 breeding colonies occurring in WA and SA are designated as habitat critical to the survival of the species under the Recovery Plan for the Australian sea lion (DSEWPAC, 2013a). Of these, four are located in the SWMR along the west coast of WA: Abrolhos Islands (Easter Group), Beagle Island, North Fisherman Island and Buller Island. There are also a number of foraging BIAs for both males and females along the west coast,
	extending from the Abrolhos Islands south to Rockingham. There is no designated habitat critical to survival or identified BIAs for this species in the NWMR. Figure 7-6 shows the foraging BIAs for the Australian sea lion to the south of the NWMR.

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7.5 Biological Important Areas in the NWMR

BIAs representing important life cycle stages and behaviours for six species of marine mammal in the NWMR: the humpback whale, the pygmy blue whale, Australian snubfin dolphin, Australian humpback dolphin, spotted bottlenose dolphin and dugong, are presented in **Table 7-3**.

Table 7-3 Marine mammal BIAs within the NWMR

Species	Woodside Activity Area			BIAs						
	Browse	NWS/S	NWC	Resting	Foraging	Breeding	Calving	Migration		
Humpback whale ¹	✓ 	✓	✓	Shark Bay Exmouth Gulf (north migration – early June) (south migration – late Aug to Oct) Southern Kimberley region	No foraging BIA identified within the NWMR	Kimberley coast from the Lacepede Islands to north of Camden Sound (mid Aug – early Sept)	Core calving in waters off the Kimberley coast from the Lacepede Islands to north of Camden Sound (mid Aug – early Sept)	Southern border of the NWMR to north of the Kimberley (arrive June)		
Blue whale and Pygmy blue whale ¹	✓ ————————————————————————————————————	✓	✓	No resting BIA identified within the NWMR	Possible foraging areas off Ningaloo and Scott Reef	No breeding BIA identified within the NWMR	No calving BIA identified within the NWMR	Augusta to Derby. Along the shelf edge at depths of 500 m to 1000 m; appear close to Ningaloo coast Montebello Islands area on southern migration (north: April – Aug) (south: Oct – late Dec)		
Australian snubfin dolphin ¹		✓	-	No resting BIA identified within the NWMR	Roebuck Bay Cambridge Gulf Camden Sound area King Sound (south) King Sound (north) Yampi Sound Talbot Bay Maret Islands Bigge Island Admiralty Gulf Parry Harbour Bougainville Peninsula Vansittart Bay Anjo Peninsula Napier	Roebuck Bay Cambridge Gulf Camden Sound area King Sound (south) King Sound (north) Yampi Sound Talbot Bay Maret Islands Bigge Island Admiralty Gulf Parry Harbour Bougainville Peninsula Vansittart Bay, Anjo Peninsula Napier Broome Bay Deep Bay Prince Regent River King George River Cape Londonderry	Roebuck Bay Cambridge Gulf Camden Sound area King Sound (south) King Sound (north) Yampi Sound Talbot Bay Maret Islands Bigge Island Admiralty Gulf Parry Harbour Bougainville Peninsula Vansittart Bay Anjo Peninsula Napier Broome Bay Deep Bay Prince Regent River	No migration BIA identified within the NWMR		

Species	Woodside Activity Area			BIAs					
	Browse	NWS/S	NWC	Resting	Foraging	Breeding	Calving	Migration	
					Broome Bay Deep Bay Prince Regent River King George River Cape Londonderry Ord River	Ord River	King George River Cape Londonderry Ord River		
Indo-Pacific humpback dolphin	✓ ·	✓	-	No resting BIA identified within the NWMR	Roebuck Bay Willie Creek Prince Regent River King Sound (north) Yampi Sound Talbot Bay Walcott Inlet Doubtful Bay Deception Bay Augustus Island Maret Islands Bigge Island King Sound, southern sector Vansittart Bay, Anjo Peninsula	Roebuck Bay Willie Creek Prince Regent River King Sound (north) Yampi Sound Talbot Bay Walcott Inlet Doubtful Bay Deception Bay Augustus Island	Roebuck Bay Willie Creek Prince Regent River	No migration BIA identified within the NWMR	
Spotted bottlenose dolphin	✓	1	√	No resting BIA identified within the NWMR	Roebuck Bay Cambridge Gulf Camden Sound area King Sound (south) King Sound (north) Yampi Sound	Roebuck Bay Cambridge Gulf Camden Sound area King Sound (south) King Sound (north) Yampi Sound	No calving BIA identified within the NWMR	No migration BIA identified within the NWMR	

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Species	Wood	dside Act Area	tivity	BIAs				
	Browse	NWS/S	NWC	Resting	Foraging	Breeding	Calving	Migration
Dugong ¹	✓	√	✓	No resting BIA identified within the NWMR	Exmouth Gulf Ningaloo Reef Shark Bay Roebuck Bay Dampier Peninsula	No breeding BIA identified within the NWMR	Exmouth Gulf Ningaloo Reef Shark Bay	Not listed as a migratory species

^{1.} DSEWPAC (2012a)

^{2.} Commonwealth of Australia (2015a)

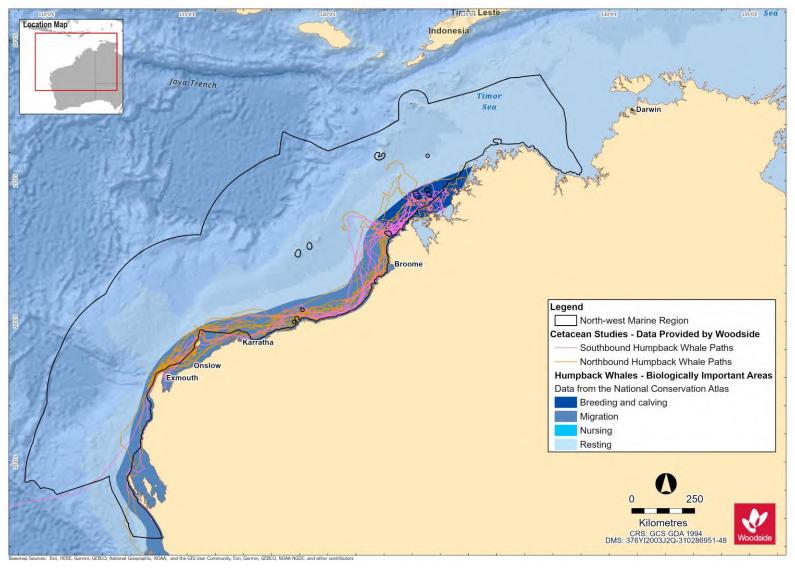


Figure 7-1 Humpback whale BIAs for the NWMR and tagged tracks for north and south bound migrations

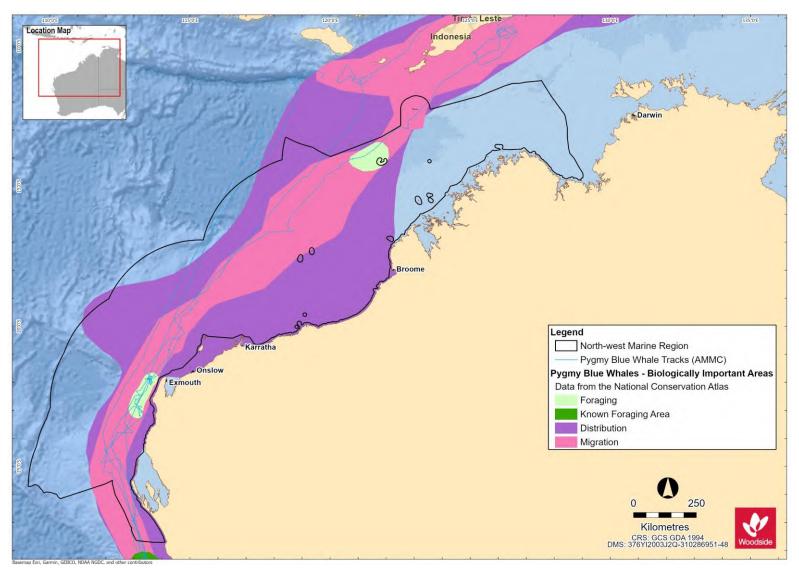


Figure 7-2 Pygmy blue whale BIAs for the NWMR and tagged whale tracks for northbound migration

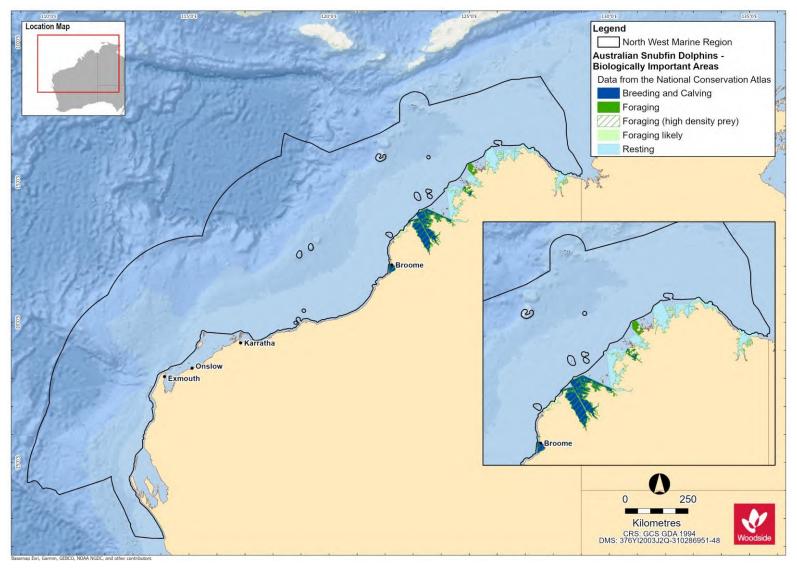


Figure 7-3 Australian snubfin dolphin BIAs for the NWMR

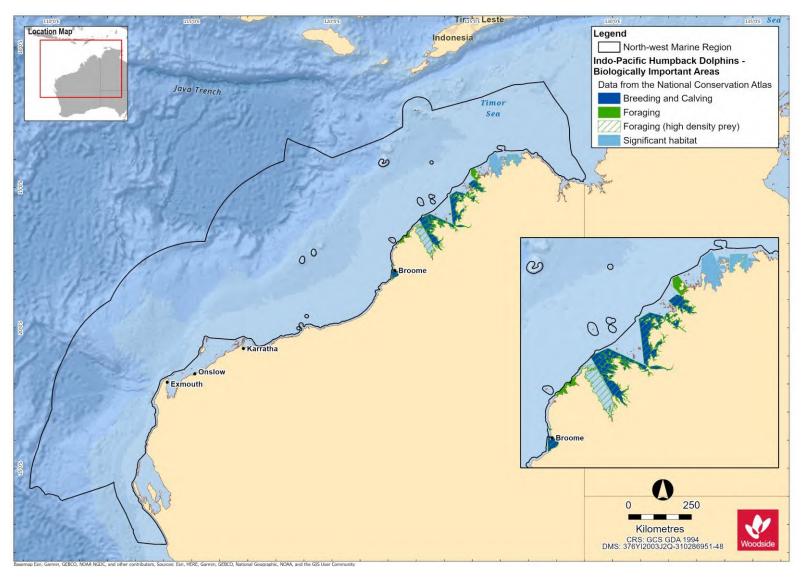


Figure 7-4 Indo-Pacific humpback dolphin BIAs for the NWMR

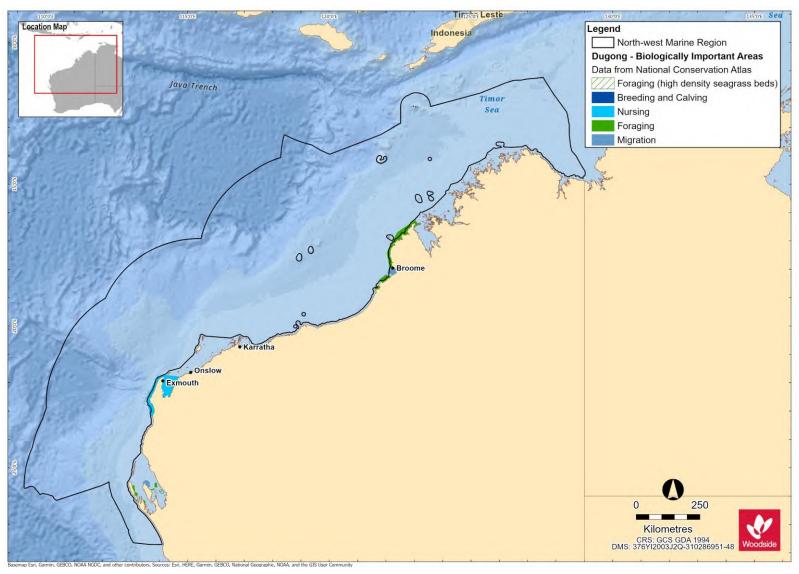


Figure 7-5 Dugong BIAs for the NWMR

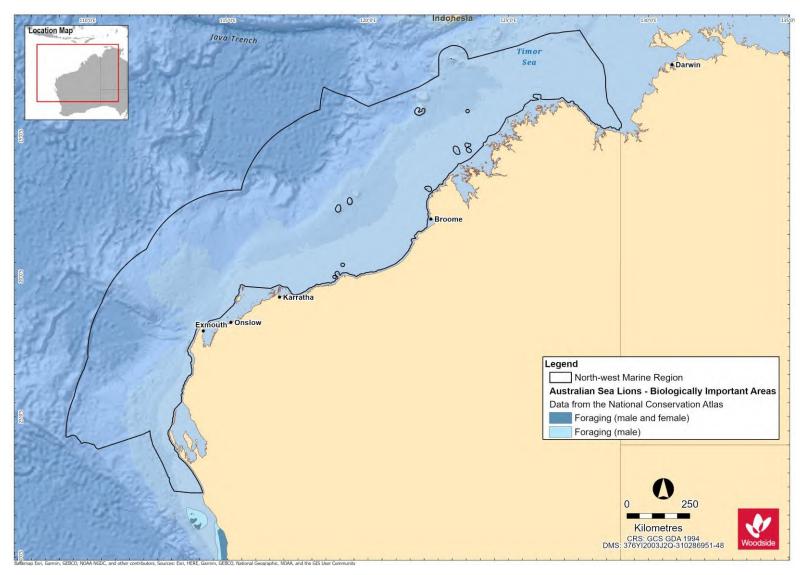


Figure 7-6 Australian sea lion BIAs in the northern extent of the SWMR closest to the NWMR

7.6 Marine Mammal Summary for the NWMR

7.6.1 **Browse**

The Browse activity area includes biologically important habitat for five threatened and/or migratory marine mammal species:

- blue whale and pygmy blue whale (foraging and migration areas);
- humpback whale (breeding, calving and migration areas);
- Indo-Pacific humpback dolphin (foraging, breeding and calving areas);
- Australian snubfin dolphin (foraging, breeding and calving areas); and
- dugong (foraging).

BIAs for the marine mammal species are outlined in **Table 7-3**.

7.6.2 North-west Shelf / Scarborough

The NWS / Scarborough activity area includes biologically important habitat for five threatened and/or migratory marine mammal species:

- blue whale and pygmy blue whale (foraging and migration areas);
- humpback whale (resting and migration areas);
- Indo-Pacific humpback dolphin (foraging, breeding and calving areas);
- Australian snubfin dolphin (foraging, breeding and calving areas); and
- dugong (foraging and calving areas).

BIAs for the marine mammal species are outlined in **Table 7-3**.

7.6.3 North-west Cape

The North-west Cape activity area includes biologically important habitat for three threatened and/or migratory marine mammal species:

- blue whale and pygmy blue whale (foraging and migration areas);
- humpback whale (resting and migration areas); and
- dugong (foraging and calving areas).

BIAs for the marine mammal species are outlined in **Table 7-3**.

8. SEABIRDS AND MIGRATORY SHOREBIRDS OF THE NWMR

8.1 Regional Context

The NWMR supports high numbers and species diversity of seabirds and migratory shorebirds including many that are EPBC Act listed, threatened and migratory. The NWMR marine bioregional plan reported 34 seabird species (listed as threatened, migratory and/or marine) that are known to occur, and 30 of 37 species of migratory shorebird species that regularly occur in Australia, are recorded at Ashmore Reef in the NWMR (DSEWPAC, 2012e). The NWMR marine bioregional plan also noted that Roebuck Bay and Eighty Mile Beach are internationally significant and recognised migratory shorebird locations.

Many migratory seabirds and shorebirds are protected through bilateral agreements between Australia and Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA), recognising the migratory route and important stopover and resting habitats of the East Asian-Australasian Flyway (EAAF). Important migratory bird habitats are also recognised as part of protected wetlands of the internationally significance under the Ramsar Convention. Important Bird Areas (IBAs) for the NWMR, which are also recognised as global Key Biodiversity Areas (KBAs) (BirdLife Australia⁴), include:

- Roebuck Bay KBA (and Ramsar site): Internationally significant migratory shorebird species.
- Mandora Marsh and Anna Plains KBA (adjacent to Eighty Mile Beach, Ramsar site): Internationally significant migratory shorebird species.
- Dampier Saltworks KBA: Internationally significant migratory shorebird species.
- Montebello Islands KBA: Shorebird and seabird species.
- Barrow Island KBA: Shorebird and seabird species.
- Exmouth Gulf Mangroves KBA: Internationally significant migratory shorebird species.

Table 8-1 presents a list of the threatened and migratory seabird and shorebird species that occur within the NWMR, with their conservation status and relevant recovery plans and/or conservation advice.

4

 $\frac{https://www.birdlife.org.au/projects/KBA\#:\sim:text=The\%20Key\%20Biodiversity\%20Areas\%20(KBAs,of\%20adwocacy\%20for\%20protected\%20areas.$

Accessed April, 2021.

Table 8-1. Bird species (threatened/migratory) identified by the EPBC Act PMST and other sources of information as potentially occurring within the NWMR

Species Name	Common Name	Environment Pro	otection and Biorvation Act 1999		WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory Instrument
		Threatened Status	Migratory Status	Listed	Conservation Status	Statutory mistrument
			Seabirds			
Macronectes giganteus	Southern giant petrel	Endangered	Migratory	Marine	Migratory	National recovery plan for threatened albatrosses and giant petrels 2011-2016 (DSEWPAC, 2011c)
Papasula abbotti	Abbott's booby	Endangered	N/A	Marine	N/A	Conservation Advice for the Abbott's booby - Papasula abbotti (Threatened Species Scientific Committee, 2020b)
Pterodroma mollis	Soft-plumaged petrel	Vulnerable	N/A	Marine	N/A	Conservation Advice Pterodroma mollis soft-plumaged petrel (Threatened Species Scientific Committee, 2015f)
Sternula nereis nereis	Australian fairy tern	Vulnerable	N/A	N/A	Vulnerable	Conservation Advice for Sternula nereis nereis (Fairy Tern) (DSEWPAC, 2011d)
Anous tenuirostris melanops	Australian lesser noddy	Vulnerable	N/A	Marine	Endangered	Conservation Advice Anous tenuirostris melanops Australian lesser noddy (Threatened Species Scientific Committee, 2015e)
Thalassarche carteri	Indian yellow-nosed albatross	Vulnerable	Migratory	Marine	Endangered	National recovery plan for threatened albatrosses and giant petrels 2011-2016 (DSEWPAC, 2011c)
Anous stolidus	Common noddy	N/A	Migratory	Marine	Migratory	Draft Wildlife Conservation Plan
Fregata ariel	Lesser frigatebird	N/A	Migratory	Marine	Migratory	for Seabirds (Commonwealth of
Fregata minor	Great frigatebird	N/A	Migratory	Marine	Migratory	Australia, 2019)
Sula leucogaster	Brown booby	N/A	Migratory	Marine	Migratory	
Sula sula	Red-footed booby	N/A	Migratory	Marine	Migratory	

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Species Name	Common Name	Environment Pr Conse	otection and Bi rvation Act 1999		WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory Instrument
		Threatened Status	Migratory Status	Listed	Conservation Status	Statutory instrument
Onychiprion anaethetus (listed as Sterna anaethetus)	Bridled tern	N/A	Migratory	Marine	Migratory	
Thalasseus bergii	Greater crested tern	N/A	Migratory	Marine	Migratory	
Sternula albifrons	Little tern	N/A	Migratory	Marine	Migratory	
Sterna dougallii	Roseate tern	N/A	Migratory	Marine	Migratory	
Onychoprion fuscata	Sooty tern	N/A	N/A	Marine	N/A	
Hydroprogne caspia	Caspian tern	N/A	Migratory	Marine	Migratory	
Ardenna pacifica	Wedge-tailed shearwater	N/A	Migratory	Marine	Migratory	
Puffinus assimillis	Little shearwater	N/A	N/A	Marine	N/A	
Ardenna carneipes	Flesh-footed shearwater	N/A	Migratory	Marine	Vulnerable	
Calonectris leucomelas	Streaked shearwater	N/A	Migratory	Marine	Migratory	
Phaethon lepturus	White-tailed tropicbird	N/A	Migratory	Marine	Migratory	
Chroicocephalus novaehollandiase	Silver gull	N/A	N/A	Marine	N/A	
		Mig	ratory shorebirds	s		
Numenius madagascariensis	Eastern curlew, Far Eastern curlew	Critically endangered	Migratory	Marine	Critically endangered	Conservation Advice <i>Numenius</i> madagascariensis eastern curlew (DOE, 2015a)
Calidris ferruginea	Curlew sandpiper	Critically endangered	Migratory	Marine	Critically endangered	Conservation Advice <i>Calidris</i> ferruginea curlew sandpiper (DOE, 2015b)
Calidris tenuirostris	Great knot	Critically endangered	Migratory	Marine	Critically endangered	Conservation Advice Calidris tenuirostris Great knot (Threatened Species Scientific Committee, 2016a)
Limosa lapponica menzbieri	Bar-tailed godwit (menzbieri)	Critically endangered	Migratory	Marine	Critically endangered	Conservation Advice Limosa lapponica menzbieri Bar-tailed godwit (northern Siberia). (Threatened Species Scientific Committee, 2016c)

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Species Name	Common Name	Environment Pro Conser	otection and Bio rvation Act 1999		WA Biodiversity Conservation Act 2016	EPBC Act Part 13 Statutory Instrument	
		Threatened Status	Migratory Status	Listed	Conservation Status		
Calidris canutus	Red knot	Endangered	Migratory	Marine	Endangered	Conservation Advice <i>Calidris</i> canutus Red knot (Threatened Species Scientific Committee, 2016b)	
Charadrius mongolus	Lesser sand plover	Endangered	Migratory	Marine	Endangered	Conservation Advice Charadrius mongolus Lesser sand plover (Threatened Species Scientific Committee, 2016e)	
Charadrius leschenaultii	Greater sand plover	Vulnerable	Migratory	Marine	Vulnerable	Conservation Advice Charadrius leschenaultia Greater sand plover (Threatened Species Scientific Committee, 2016d)	
All migratory shorebird species	Wildlife Conservation Plan for Migratory Shorebirds (Commonwealth of Australia, 2015c).						

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8.2 Seabirds in the NWMR

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Seabirds are birds that are adapted to life within the marine environment (oceanic and coastal) and are generally long-lived, have delayed breeding and have fewer young than other bird species (Commonwealth of Australia, 2019). At least 34 seabird species listed as threatened, migratory and/or marine under the EPBC Act are known to occur regularly in the NWMR and include a variety of species of terns, noddies, petrels, shearwaters, frigatebirds, and boobies. Many of these species spend most of their lives at sea (predominately pelagic species), ranging over large distances to forage. These pelagic species only come onshore to breed and raise chicks at natal or high-fidelity breeding colonies on remote, offshore island locations in and adjacent to the NWMR. Many species are ecologically significant to the NWMR, as they are endemic to the region, can be present in large numbers in breeding seasons and non-breeding seasons, and many exhibit extensive annual migrations that include marine areas outside the Australian EEZ (DSEWPAC, 2012e).

The presence of seabirds within the NWMR is influenced by seabird species that migrate and forage in the area during the non-breeding season and this includes many seabird species that breed on the Houtman Abrolhos in the SWMR. Pelagic seabirds have been documented foraging at current boundaries and seasonal upwellings within the NWMR (refer to Sutton *et al.*, 2019). The Houtman Abrolhos Islands National Park located in the SWMR, is one of the most significant seabird breeding locations in the eastern Indian Ocean. Sixteen (16) species of seabirds breed there. Eighty percent of common (brown) noddies, 40% of sooty terns and all the lesser noddies found in Australia nest at the Houtman Abrolhos (Surman, 2019). Important seabird areas in the NWMR are as identified by the KBAs (refer to **Section 8.1**) and the information on a select number of seabird species documented for the NWMR (based on the screening criteria presented in **Section 3**), as presented in **Table 8-2**.

Table 8-2 Information on threatened/migratory seabird species of the NWMR

Key Information						
Seabirds						
This species is included in the National recovery plan for threatened albatrosses and giant petrels. Habitat critical to survival is defined for breeding and foraging. There are six known breeding localities under Australian jurisdiction (for all species giant petrels) and all are located in the Southern Ocean including islands off Tasmania and within the Australian Antarctic Territory (DSEWPAC, 2011c). Habitat critical to survival identified for foraging is defined as waters south of 25 degrees latitude. The giant petrel species distribution is mainly within the Southern Ocean but this species does migrate into subtropical waters during the winter and its distribution includes the southern extent of the NWMR. No BIAs for this species are located in the NWMR.						
The Abbott's booby is a large, long-lived seabird known to nest only at Christmas Island. The recovery of this species is strongly dependent on the protection of breeding habitat defined habitat critical to the survival of this species on Christmas Island (Threatened Species Scientific Committee, 2020b). This species spends much of its time at sea and known to forage over large distances offshore when nesting and its range includes off the coast of Java, near the Chagos and in the Banda Sea, and may possibly extend into the northwestern extent of the NWMR. No BIAs for this species are located in the NWMR.						
This petrel species breeds only at two locations in Australian waters within the Southern Ocean (one off Tasmania and Macquarie Island) (Threatened Species Scientific Committee, 2015f). As a mainly sub-Antarctic species they are usually distributed in cooler seas but distribution extents into subtropical waters and its known distribution includes the southern extent of the NWMR. No BIAs for this species are located in the NWMR.						
The Australian fairy tern is listed as Vulnerable for the sub-species only recorded for WA. It has a coastal distribution from Sydney, south to Tasmania and around southern WA up to the Dampier Archipelago and out on the offshore island groups of Barrow, Montebello and the Lowendals (DSEWPAC, 2011d). The Australian fairy tern feeds on small baitfish and roosts and nests on sandy beaches below vegetation. These behaviours, generally, occur in inshore waters of island archipelagos and on the Australian mainland shores and adjacent wetlands. Fairy terns breed from August to February. The Australian fairy tern is unlikely to be present						

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Species	Key Information
	within the offshore environment of the NWMR. The largest breeding colony in Western Australia for this species is in the Houtman Abrolhos Islands, SWMR (Surman, 2019).
	For the description and location of BIAs in the NWMR, refer to Table 8-3 and Figure 8-2 .
Australian lesser noddy	The Houtman Abrolhos, WA is an important breeding habitat for the Australian lesser noddy in the eastern Indian Ocean. This species exhibits nesting habitat specialisation (white mangrove stands) and has a limited foraging range during the breeding season. Furthermore, the lesser noddy forages over shelf waters and appears not to disperse over their non-breeding period as they remain largely in the general vicinity or slightly to the south of the colony in the non-breeding season (February to September; Surman <i>et al.</i> , 2018). No BIAs for this species are located in the NWMR.
Indian yellow-nosed albatross	This species is included in the National recovery plan for threatened albatrosses and giant petrels. Habitat critical to survival is defined for breeding and foraging. There are six known breeding localities under Australian jurisdiction (for all species of albatrosses) and all are located in the Southern Ocean including islands off Tasmania and within the Australian Antarctic Territory (DSEWPAC, 2011c). Habitat critical to survival identified for foraging is defined as waters south of 25 degrees latitude. All albatross species distribution (including the Indian yellow-nose albatross) is mainly within the Southern Ocean but this species does migrate into subtropical waters during the winter and its distribution includes the southern extent of the NWMR. No BIAs for this species are located in the NWMR.
Common noddy	This species is listed as migratory and marine. The common (or brown) noddy is the largest species of noddy found in Australian waters. The species is widespread in tropical and subtropical areas beyond Australia. This seabird species is gregarious and normally occurs in flocks, up to hundreds of individuals, when feeding or roosting. The Houtman Abrolhos, WA is the primary breeding habitat for the common noddy in the Eastern Indian Ocean. This species spends their non-breeding season (March to August) in the NWS area, around 950 km north from the breeding colony (Surman <i>et al.</i> 2018). The species occurs within NWMR waters, particularly around offshore islands such as the Montebello Island group. This species is recorded on unmanned oil and gas platforms within the NWS. No BIAs for this species are located in the NWMR.
Lesser frigatebird Great frigatebird	Both species of frigatebird are listed as migratory and marine. Within the NWMR, the lesser frigatebird is known to breed on Adele, Bedout and West Lacepede islands, Ashmore Reef and Cartier Island (Commonwealth of Australia, 2019). The lesser frigatebird feeds mostly on fish and sometimes cephalopods, and all food is taken while the bird is in flight. Lesser frigatebirds generally forage close to breeding colonies. Breeding/foraging BIAs for the lesser frigatebird are located in the NWMR; refer to Table 8-3 .
Brown booby	The brown booby is the most common booby, occurring throughout all tropical oceans bounded by latitudes 30° N and 30° S. There are large colonies on offshore islands within the NWMR such as the Lacepede Islands (one of the largest colonies in the world), Ashmore Reef, and other offshore Kimberley islands. This seabird species is a specialised plunge diver, mostly eating fish and some cephalopods (Commonwealth of Australia, 2019). Breeding/foraging BIAs for the brown booby are located in the NWMR; refer to Table 8-3 and Figure 8-3 .
Red-footed booby	Within the NWMR, its known breeding sites for this species include Ashmore Reef and Cartier Island. It is a pelagic species and generally occurs away from land. It mainly eats flying fish and squid. Prey abundance is reliant on the high productivity in slope areas off remote islands where the birds breed (Commonwealth of Australia, 2019). Breeding/foraging BIAs for the red-footed booby are located in the NWMR; refer to Table 8-3 and Figure 8-3 .
Greater crested tern	The greater crested tern has a widespread distribution recorded on islands and coastlines of tropical and subtropical areas, ranging from the Atlantic coast of South Africa, Indian Ocean and through south-east Asia and Australia. Outside the breeding season it can be found at sea throughout its range, with the exception of the central Indian Ocean (Commonwealth of Australia, 2019). The largest breeding colony in WA for this species is the Houtman Abrolhos Islands, SWMR (Surman, 2019). No BIAs for this species are located in the NWMR.
Little tern	There are three sub-populations of this species in Australia and two of these occur in the NWMR: northern Australian breeding sub-population occurring around Broome and extending across in to the NMR, and an east Asian breeding sub-population, with the terns present from Shark Bay to south-eastern Queensland during the austral summer. Little terns

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Species	Key Information
	usually forage close to breeding colonies in the shallow water of estuaries (Commonwealth of Australia, 2019).
	For the description and location of BIAs in the NWMR, refer to Table 8-3 and Figure 8-2 .
Roseate tern	This species is generally tropical in distribution and there are many breeding populations in the NWMR, including Ashmore Reef, Napier Broome Bay, Bonaparte Archipelago, Lacepede Islands, Dampier Archipelago and the Lowendal Islands. A large number of non-breeding roseate terns have been observed at several remote locations in the Kimberley and there are high numbers also recorded for Eighty Mile Beach Ramsar site. The Kimberley colonies are likely to be another sub-species that breeds in east Asia. Roseate terns predominately eat small pelagic fish (Commonwealth of Australia, 2019). The largest breeding colony in Western Australia for this species is in the Houtman Abrolhos Islands, SWMR (Surman, 2019). For the description and location of BIAs in the NWMR, refer to Table 8-3 and Figure 8-2 .
Wedge-tailed shearwater	The wedge-tailed shearwater is a pelagic, marine seabird known from tropical and subtropical waters. Its distribution is widespread across the Indian and Pacific oceans. It is known to breed on the east and west coasts (and offshore islands) of Australia. This species is known to consume fish, cephalopods, and other biota primarily via contact-dipping. Wedge-tailed shearwaters are now understood to undertake extensive foraging trips (over thousands of kilometres over periods of days when chicking and provisioning young) and much longer and extensive pelagic travels over the north-west Indian Ocean during the non-breeding season, targeting current boundaries and upwellings. The species breeds throughout its range, mainly on vegetated islands, atolls and cays and excavates burrows in the ground where chicks are raised (Commonwealth of Australia, 2019). Large breeding colonies of the wedge-tailed shearwater are located on the Houtman Abrolhos islands (SWMR) (Surman et al., 2018) and several locations in the NWMR including: Muiron Islands (North-west Cape), Varanus Island and the Dampier Archipelago in the Pilbara where burrow numbers were estimated to several hundred thousand to half a million such as on the Muiron Islands, though it is not known if all burrows are utilised on an annual basis (Birdlife Australia, 2018; Surman et al., 2018). Cannell et al (2019) satellite tracked adult wedge-tailed shearwaters during egg incubation and chick rearing on the Muiron Islands in January 2018. For the incubation trips, there was a strong consistency for the birds to travel towards seamounts, typically located north-west of the Muiron Islands, between Australia and Indonesia. One bird however remained south-west of the islands, in the Cape Range Canyon. A similar pattern to utilise areas associated with sea mounts was also observed for the long foraging trips during chick rearing, though some of the foraging was concentrated in deeper waters. A bimodal foraging strategy during chick-rearing was observed, with adults under
Flesh-footed shearwater	The species mainly occurs in the subtropics, over continental shelves and slopes and occasionally inshore waters, with individual birds pass through the tropics and over deeper waters during migration to the North Pacific and Indian oceans (Commonwealth of Australia, 2019). They are a common visitor to the waters off southern Australia, from south-western WA to south-eastern Queensland. The fleshy-footed shearwater is a trans-equatorial migrant, breeding from late September to May off south-western Australia, and migrating north by early May, across the southern Indian and possibly Indonesia to the northern Pacific Ocean. No BIAs for the flesh-footed shearwater are located in the NWMR.
Streaked shearwater	The streaked shearwater has a broad distribution in the western Pacific Ocean, breeding on the coast and offshore islands of Japan, Russia, China and the Korean Peninsula. During winter months (non-breeding season), the species undertakes trans-equatorial migration to the coasts of Vietnam, New Guinea, the Philippines, Australia, southern India and Sri Lanka. The streaked shearwater feeds mainly on fish and squid that it catches by surface-seizing and shallow plunges (Commonwealth of Australia, 2019). No BIAs for the streaked shearwater are located in the NWMR.
White-tailed tropicbird	Tropicbirds are predominately pelagic species and the white-tailed tropicbird forages in warm waters and over long distances (pan-tropical). The species is most common off north-west Australia. In the NWMR, this species is considered a sub-species and are limited in number and distribution. Nesting sites are known for Clerke Reef (Rowley Shoals) and Ashmore

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Species	Key Information
	Reef. Christmas Island is also a known nesting site and the species can disperse several thousand kilometres during foraging trips. This species feeds mainly on fish and cephalopods, captured by deep plunge diving (Commonwealth of Australia, 2019). There are breeding BIAs at the Rowley Shoals and Ashmore Reef within the NWMR for the white-tailed tropicbird; refer to Table 8-3 .
Silver gull	The silver gull is typically described as an inshore and coastal foraging seabird and has an Australian-wide distribution including locations within the NWMR. It is noted as it has been recorded on unmanned oil and gas platforms located within the NWS.

8.2.1 Biologically Important Areas in the NWMR

BIAs representing important life cycle stages and behaviours for eight species of seabird in the NWMR are presented in **Table 8-3**.

Table 8-3 Seabird BIAs within the NWMR

Cookind Cooking	Woodside Activity Area			BIAs			
Seabird Species	Browse NWS/S NWC		NWC	Breeding/foraging	Foraging	Resting	
Australia fairy tern	-	✓	✓	-	No foraging BIAs in the NWMR Foraging in high numbers: the BIA is located in the SWMR including the Houtman Abrolhos Islands	Dampier Archipelago, Montebello, Lowendal and Barrow Island Groups, south Ningaloo and barrier island of Shark Bay	-
Wedge-tailed shearwater	✓	√	√	Widespread area of the NWMR offshore and inshore waters	Foraging in high numbers: the BIA is located in the SWMR including the Houtman Abrolhos Islands	-	-
Great frigatebird	✓	-	-	Ashmore Reef, Adele Island	-	-	-
Lesser frigatebird	✓	1	-	Off Eighty Mile Beach, Lacepedes, Adele Island, North Kimberley and Ashmore Reef	-	-	-
Brown booby	✓	✓	-	Off Eighty Mile Beach, Lacepedes, Adele Island, North Kimberley and Ashmore Reef	-	-	-
Red-footed booby	√	-	-	Adele Island, Ashmore Reef	-	-	-
Little tern	✓	✓	-	Rowley Shoals, Adele Island	-	-	-
Roseate tern	✓	✓	✓	-	No foraging BIAs in the NWMR Foraging (provisioning young) and foraging BIAs located in the SWMR – Houtman Abrolhos Islands the	Dampier Archipelago, Montebello, Lowendal and Barrow Island Groups, south Ningaloo and barrier island of Shark Bay	Eighty Mile Beach

Soobird Species	Woodside Activity Area			BIAs			
Seabird Species	Browse	NWS/S	NWC	Breeding/foraging	Foraging	Breeding	Resting
					nearest BIA to the NWMR		
White-tailed tropicbird	√	1	-			Rowley Shoals Ashmore Reef	

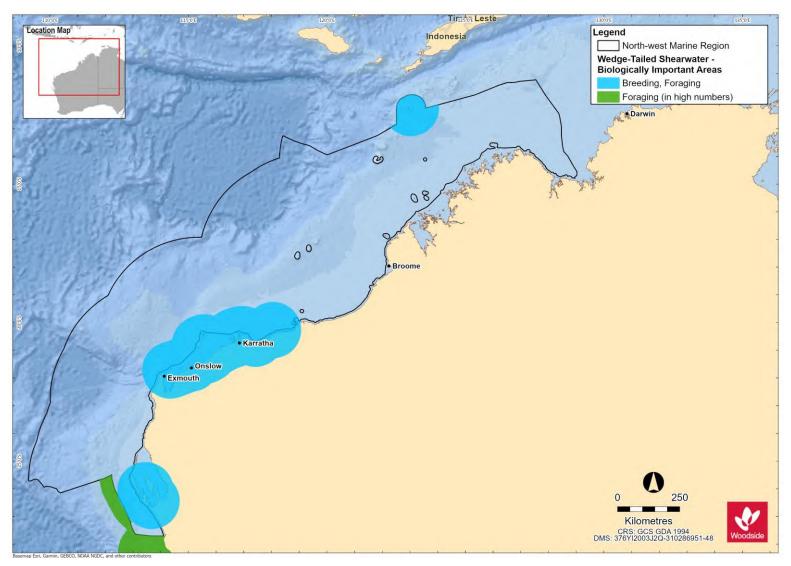


Figure 8-1 Wedge-tailed shearwater BIAs for the NWMR

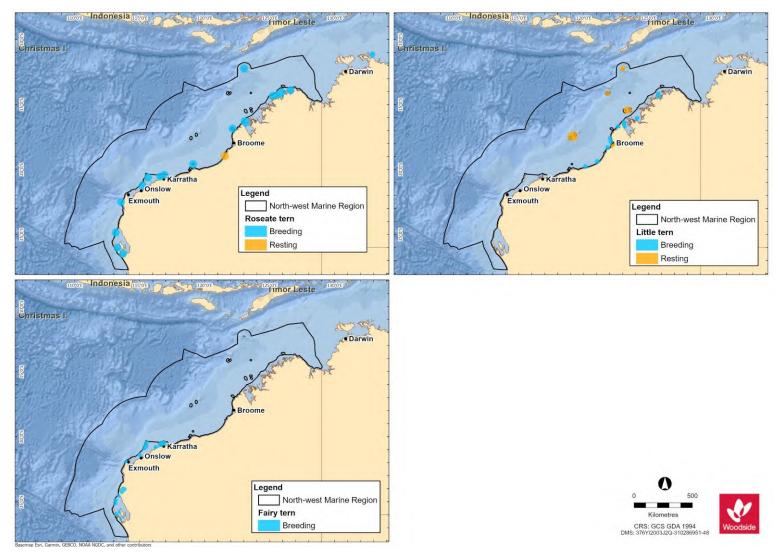


Figure 8-2 Tern species BIAs for the NWMR

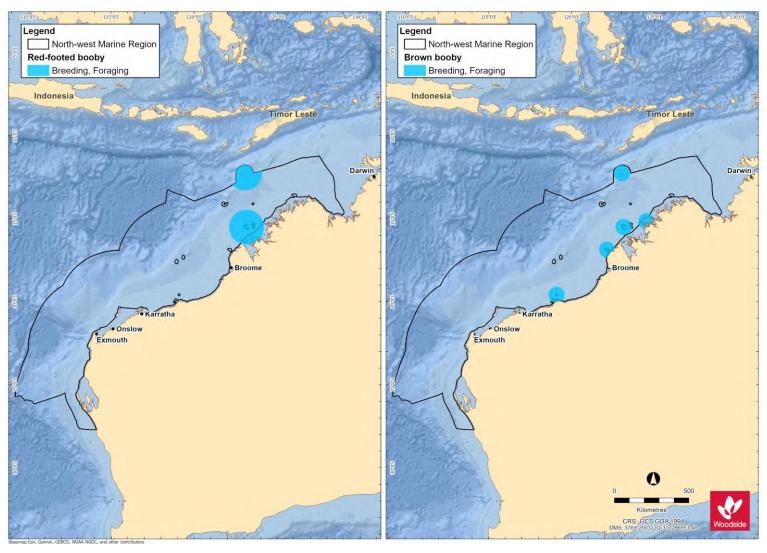


Figure 8-3 Red-footed and brown booby BIAs for the NWMR

8.2.2 Seabird Summary for NWMR

8.2.2.1 Browse

The Browse activity area includes biologically important habitat for seven threatened and/or migratory seabird species:

- wedge-tailed shearwater (breeding/foraging);
- great and lesser frigatebirds (breeding/foraging);
- brown booby (breeding/foraging);
- red-footed booby (breeding/foraging);
- little tern (breeding/foraging);
- roseate tern (breeding and resting); and,
- white-tailed tropicbird (breeding).

BIAs for the seabird species are outlined in **Table 8-3**.

8.2.2.2 NWS / Scarborough

The NWS / Scarborough activity area includes biologically important habitat for five threatened and/or migratory seabird species:

- wedge-tailed shearwater (breeding/foraging);
- lesser frigatebird (breeding/foraging);
- brown booby (breeding/foraging);
- little tern (breeding/foraging); and
- roseate tern (breeding and resting).

BIAs for the seabird species are outlined in **Table 8-3**.

8.2.2.3 North-west Cape

The North-west Cape activity area includes biologically important habitat for five threatened and/or migratory seabird species:

- Australian fairy tern (breeding);
- wedge-tailed shearwater (breeding/foraging); and
- roseate tern (breeding and resting).

BIAs for the seabird species are outlined in **Table 8-3**.

8.3 Shorebirds

Shorebirds (migratory and resident species) are generally associated with wetland or coastal environments, and the NWMR hosts a large number of many shorebird species, particularly in the Austral summer (refer to **Appendix A** for the EPBC Act PMST reports on listed species of shorebirds). Shorebirds may use coastal environments for feeding, nesting or migratory stopovers. In coastal environments, shorebirds generally feed during low tide on exposed intertidal mud and sand flats, and roost in suitable habitat above the high water mark. Many shorebird species undergo annual migrations, typically breeding at high latitudes of the Northern Hemisphere and migrating south for the non-breeding season and Australia is part of the East Asian-Australasian Flyway (EAAF). The EAAF extends from breeding grounds in the Russian tundra, Mongolia and Alaska

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southwards through east and south-east Asia, to non-breeding areas of Indonesia, Papua New Guinea, Australia and New Zealand (Weller and Lee, 2017). The EAAF is of most relevance to the NWMR. There are 37 species of shorebird which annually migrate to Australia via the EAAF and 36 of these species spend the austral summer (non-breeding season) foraging and roosting in coastal and wetland habitats (Commonwealth of Australia, 2015c; Weller and Lee, 2017).

Ashmore Reef is documented as a BIA for migratory shorebirds in the NWMR (DSEWPAC, 2012a).

Table 8-4. Information on threatened/migratory shorebird species of the NWMR

Species	Key Information				
Opecies	-				
Shorebirds					
Eastern curlew, Far eastern curlew	This species is the largest, migratory shorebird in the world, with a long neck, long legs and a very long downcurved bill and is a long-haul flyer. The eastern curlew is a coastal species with a continuous distribution north from Barrow Island to the Kimberley region. The species is endemic to the EAAF and is a non-breeding visitor to Australia from August to March, primarily foraging on crabs and molluscs in intertidal mudflats. During the non-breeding season in Australia, this species is most associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass (DOE, 2015a).				
Curlew sandpiper	The curlew sandpiper breeds in northern Siberia but has a non-breeding range that extends from western Africa to Australia, with small numbers reaching New Zealand (Bamford <i>et al.</i> , 2008). In Australia, curlew sandpipers occur around the coasts and are also quite widespread inland, though in smaller numbers. Records occur in all states and the NT during the non-breeding period, and also during the breeding season when many non-breeding one-year old birds remain in Australia rather than migrating north along the EAAF. The species preferred habitat for foraging is mudflats and nearby shallow waters in sheltered coastal areas such as estuaries, bay, inlets and lagoons (DOE, 2015b).				
Great knot	The great knot breeds in the Northern Hemisphere and undertakes biannual migrations along the EAAF to non-breeding habitat in Australia. The great knot winters in Australia and has been recorded around the entirety of the Australian coast the greatest numbers are found in northern Western Australia (Pilbara (Dampier Archipelago) and Kimberley and the Northern Territory. In Australia, this species prefers sheltered, coastal habitat with large intertidal mudflats or sandflats (inkling inlets, bays, harbours, estuaries and lagoons). High numbers (exceeding several thousand birds are regularly recorded from Roebuck Bay. The great knot feeds on a variety of invertebrates by pecking at or just below the surface of moist mud or sand (Threatened Species Scientific Committee, 2016a).				
Bar-tailed godwit (menzbieri)	The bar-tailed godwit is a large, migratory shorebird and there are two sub-species in the EAAF (<i>Limosa lapponica baueri</i> and <i>L. I. menzbieri</i>). The sub-species <i>L. I. menzbieri</i> breeds in northern Siberia and spends its non-breeding period mostly in the north of WA but also in South-east Asia. The bar-tailed godwit (<i>menzbieri</i>) usually forages near the water in shallow water, mainly in tidal estuaries and harbours with a preference for exposed sandy or soft mud substrates on intertidal flats, banks and beaches (Threatened Species Scientific Committee, 2016c).				
Red knot (piersmai)	This species is a small to medium migratory shorebird. There are two sub-species that cannot be distinguished from each other in nonbreeding plumage, however, <i>Calidris canutus piersmai</i> tend to overwinter almost exclusively in north-west Australia. The red knot migrates long distances from breeding grounds in high northern latitudes, where it breeds during the boreal summer, to the Southern Hemisphere during the austral summer with migration along the EAAF. Very large numbers are recorded for the north-west Australia and is common in all suitable habitats around the coast, including inland clay pans near Roebuck Bay (where the species roosts). The red knot usually forages in soft substrate along the waters edge on intertidal mudflats, sandflats and sandy beaches of sheltered coasts (Threatened Species Scientific Committee, 2016b).				
Lesser sand plover	The lesser sand plover is a small to medium shorebird and one of 36 migratory shorebirds that breed in the Northern Hemisphere during the boreal summer and are known to annually migrate to the non-breeding grounds of Australia along the EAAF for the austral summer. There are five different sub-species and it is most likely the non-breeding ranges of the sub-species <i>Charadrius m. mongolus</i> overlaps with the NWMR. This species is widespread in coastal regions, preferring sandy beaches, mudflats of coastal bays and estuaries (Threatened Species Scientific Committee, 2016e).				
Greater sand plover	The greater sand plover is a small to medium shorebird and in its non-breeding plumage is difficult to distinguish from the lesser sand plover. This species breeds in the Northern				

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Species	Key Information
	Hemisphere and undertakes annual migrations to and from Southern Hemisphere feeding grounds in the austral summer along the EAAF. The species distribution in Australia during the non-breeding season is widespread, in WA the greater sand plover is widespread between Northwest Cape and Roebuck Bay (Threatened Species Scientific Committee, 2016d).

9. KEY ECOLOGICAL FEATURES

Key ecological features (KEFs) are elements of the Commonwealth marine environment that are considered to be important for a marine region's biodiversity or ecosystem function and integrity. KEFs have been identified by the Australian Government based on advice from scientists about the ecological processes and characteristics of the area.

KEFs meet one or more of the following criteria:

- a species, group of species, or a community with a regionally important ecological role (e.g. a predator, prey that affects a large biomass or number of other marine species),
- a species, group of species or a community that is nationally or regionally important for biodiversity,
- an area or habitat that is nationally or regionally important for:
 - enhanced or high productivity (such as predictable upwellings an upwelling occurs when cold nutrient-rich waters from the bottom of the ocean rise to the surface),
 - aggregations of marine life (such as feeding, resting, breeding or nursery areas), or
 - biodiversity and endemism (species which only occur in a specific area),
- a unique seafloor feature, with known or presumed ecological properties of regional significance.

Thirteen KEFs are designated within the NWMR, twelve KEFs within the SWMR and eight KEFs within the NMR. These KEFs have been identified in the Protected Matters search (**Appendix A**) and outlined in **Table 9-1**, **Table 9-2** and **Table 9-3**, and **Figure 9-1**, **Figure 9-2** and **Figure 9-3**.

Table 9-1 Key Ecological Features (KEF) within the NWMR

KEF Name	Woodside Activity Area			Values ¹	Description
	Browse	NWS/S	NW Cape		,
Carbonate bank and terrace system of the Sahul Shelf	~	-	-	Unique seafloor feature with ecological properties of regional significance Regionally important because of their role in enhancing biodiversity and local productivity relative to their surrounds. The carbonate banks and terraces provide areas of hard substrate in an otherwise soft sediment environment which are important for sessile species	The Carbonate banks and terrace system of the Sahul Shelf are located in the western Joseph Bonaparte Gulf and to the north of Cape Bougainville and Cape Londonderry. The carbonate banks and terraces are part of a larger complex of banks and terraces that occurs on the Van Diemen Rise in the adjacent NMR. The bank and terrace system of the Van Diemen Rise covers approximately 31,278 km² and forms part of the larger system associated with the Sahul Banks to the north and Londonderry Rise to the east. The feature is characterised by terrace, banks, channels and valleys (DSEWPAC, 2012c). The banks, ridges and terraces of the Van Diemen Rise are raised geomorphic features with relatively high proportions of hard substrate that support sponge and octocoral gardens. These, in turn, provide habitat to other epifauna, by providing structure in an otherwise flat environment (Przeslawski <i>et al.</i> , 2011). Plains and valleys are characterised by scattered epifauna and infauna that include polychaetes and ascidians. These epibenthic communities support higher order species such as olive ridley turtles, sea snakes and sharks (DSEWPAC, 2012c)
Pinnacles of the Bonaparte Basin	√	-	-	Unique seafloor feature with ecological properties of regional significance Provide areas of hard substrate in an otherwise soft sediment environment and so are important for sessile species Recognised as a biodiversity hotspot for sponges The Pinnacles of the Bonaparte Basin KEF is located within both the NWMR and NMR (refer Table 9-3)	The Pinnacles of the Bonaparte Basin provide areas of hard substrate in an otherwise relatively featureless environment, the pinnacles are likely to support a high number of species, although a better understanding of the species richness and diversity associated with these structures is required (DSEWPAC, 2012a, 2012c). Covering >520 km² within the Bonaparte Basin, this feature contains the largest concentration of pinnacles along the Australian margin. The Pinnacles of the Bonaparte Basin are thought to be the eroded remnants of underlying strata; it is likely that the vertical walls generate local upwelling of nutrient-rich water, leading to phytoplankton productivity that attracts aggregations of planktivorous and predatory fish, seabirds, and foraging turtles (DSEWPAC, 2012a, 2012c).
Ashmore Reef and Cartier Island and surrounding Commonwealth waters	✓	-	-	High productivity, biodiversity and aggregation of marine life that apply to both the benthic and pelagic habitats within the feature	Ashmore Reef is the largest of only three emergent oceanic reefs present in the north-eastern Indian Ocean and is the only oceanic reef in the region with vegetated islands. Ashmore contains a large reef shelf, two large lagoons, several channelled carbonate sand flats, shifting sand cays, an extensive reef flat, three vegetated islands—East, Middle and West islands—and

KEF Name	Woodside Activity Area			Values ¹	Description
	Browse	NWS/S	NW Cape		
					surrounding waters. Rising from a depth of more than 100 m, the reef platform is at the edge of the NWS and covers an area of 239 km². Ashmore Reef and Cartier Island and the surrounding Commonwealth waters are regionally important for feeding and breeding aggregations of birds and other marine life; they are areas of enhanced primary productivity in an otherwise low-nutrient environment (DSEWPAC, 2012a). Ashmore Reef supports the highest number of coral species of any reef off the WA coast.
Seringapatam Reef and the Commonwealth waters in the Scott Reef complex	√	-	-	Support diverse aggregations of marine life, have high primary productivity relative to other parts of the region, are relatively pristine and have high species richness, which apply to both the benthic and pelagic habitats within the feature	Seringapatam Reef and the Commonwealth waters in the Scott Reef complex are regionally important in supporting the diverse aggregations of marine life, high primary productivity, and high species richness associated with the reefs themselves. As two of the few offshore reefs in the north-west, they provide an important biophysical environment in the region (DSEWPAC, 2012a).
Continental slope demersal fish communities	✓	✓	✓	High biodiversity of demersal fish assemblages, including high levels of endemism	The diversity of demersal fish assemblages on the continental slope in the Timor Province, the Northwest Transition and the North-west Province is high compared to elsewhere along the Australian continental slope (DSEWPAC, 2012a). The continental slope between North-west Cape and the Montebello Trough has more than 500 fish species, 76 of which are endemic, which makes it the most diverse slope bioregion in Australia (Last <i>et al.</i> , 2005). The slope of the Timor Province and the Northwest Transition also contains more than 500 species of demersal fishes of which 64 are considered endemic (Last <i>et al.</i> , 2005), making it the second richest area for demersal fishes throughout the whole continental slope. Demersal fish species occupy two distinct demersal biomes associated with the upper slope (225–500 m water depths) and the mid-slope (750–1000 m). Although poorly known, it is suggested that the demersal slope communities rely on bacteria and detritus-based systems comprised of infauna and epifauna, which in turn become prey for a range of teleost fishes, molluscs and crustaceans (Brewer <i>et al.</i> , 2007). Higher-order consumers may include carnivorous fishes, deepwater sharks, large squid, and toothed whales (Brewer <i>et al.</i> , 2007). Pelagic production is phytoplankton-based, with hot spots around oceanic reefs and islands (Brewer <i>et al.</i> , 2007).

KEF Name	Woodsid	e Activity	Area	Values ¹	Description
	Browse	NWS/S	NW Cape		
Ancient coastline at 125 m depth contour	✓	V	*	Unique seafloor feature with ecological properties of regional significance Provides areas of hard substrate and therefore may provide sites for higher diversity and enhanced species richness relative to surrounding areas of predominantly soft sediment	Several steps and terraces as a result of Holocene sea level changes occur in the region, with the most prominent of these features occurring as an escarpment along the NWMR and Sahul Shelf at a water depth of 125 m. The Ancient Coastline is not continuous throughout the NWMR and coincides with a well-documented eustatic stillstand at about 130 m worldwide (Falkner et al., 2009). Where the Ancient Coastline provides areas of hard substrate, it may contribute to higher diversity and enhanced species richness relative to soft sediment habitat (Falkner et al., 2009). Parts of the Ancient Coastline, represented as rocky escarpment, are considered to provide biologically important habitat in an area predominantly made up of soft sediment. The escarpment type features may also potentially facilitate mixing within the water column due to upwelling, providing a nutrient-rich environment. Although the Ancient Coastline adds additional habitat types to a representative system, the habitat types are not unique to the coastline as they are widespread on the upper shelf (Falkner et al., 2009)
Canyons linking the Argo Abyssal Plain and Scott Plateau	-	✓	-	Facilitates nutrient upwelling, creating enhanced productivity and encouraging diverse aggregations of marine life	Interactions with the Leeuwin Current and strong internal tides are thought to result in upwelling at the canyon heads, thus creating conditions for enhanced productivity in the region (Brewer <i>et al.</i> , 2007). As a result, aggregations of whale sharks, manta rays, humpback whales, sea snakes, sharks, predatory fishes and seabirds are known to occur in the area due to its enhanced productivity (Sleeman <i>et al.</i> , 2007).
Glomar Shoal	-	✓	-	An area of high productivity and aggregations of marine life including commercial and recreational fish species	Glomar Shoal is a submerged littoral feature located about 150 km north of Dampier on the Rowley shelf at depths of 33–77 m (Falkner et al., 2009). Studies by Abdul Wahab et al. (2018) found a number of hard coral and sponge species in water depths less than 40 m. One hundred and seventy (170) different species of fishes were detected with greatest species richness and abundance in shallow habitats (Abdul Wahab et al., 2018). Fish species present include a number of commercial and recreational species such as Rankin cod, brown striped snapper, red emperor, crimson snapper, bream and yellow-spotted triggerfish (Falkner et al., 2009; Fletcher and Santoro, 2009). These species have recorded high catch rates associated with Glomar Shoal, indicating that the shoal is likely to be an area of high productivity.

KEF Name	Woodside Activity Area			Values ¹	Description
1121 110	Browse	NWS/S	NW Cape		5000.1р.10.1
Mermaid Reef and Commonwealth waters surrounding Rowley Shoals	-	✓	-	Regionally important in supporting high species richness, higher productivity and aggregations of marine life	The Mermaid Reef and Commonwealth waters surrounding the Rowley Shoals KEF and is adjacent to the three nautical mile State waters limit surrounding Clerke and Imperieuse reefs, and include the Mermaid Reef Marine Park as described in Section 10 . The reefs provide a distinctive biophysical environment in the region. They have steep and distinct reef slopes and associated fish communities. In evolutionary terms, the reefs may play a role in supplying coral and fish larvae to reefs further south via the southward flowing Indonesian Throughflow. Both coral communities and fish assemblages differ from similar habitats in eastern Australia (Done <i>et al.</i> , 1994).
Exmouth Plateau	-	✓	✓	Unique seafloor feature with ecological properties of regional significance, which apply to both benthic and pelagic habitats Likely to be an important area of biodiversity as it provides an extended area offshore for communities adapted to depths of approximately 1000 m	The Exmouth Plateau is a large, mid-slope, continental margin plateau that lies off the northwest coast of Australia. It ranges in depth from about 500 to more than 5000 m and is a major structural element of the Carnarvon Basin (Miyazaki and Stagg, 2013). The large size of the Exmouth Plateau and its expansive surface may modify deep water flow and be associated with the generation of internal tides; both of which may subsequently contribute to the upwelling of deeper, nutrient-rich waters closer to the surface (Brewer et al., 2007). Satellite observations suggest that productivity is enhanced along the northern and southern boundaries of the plateau (Brewer et al., 2007). Sediments on the plateau suggest that biological communities include scavengers, benthic filter feeders and epifauna (DSEWPAC, 2012a). Fauna in the pelagic waters above the plateau are likely to include small pelagic species and nekton attracted to seasonal upwellings, as well as larger predators such as billfishes, sharks and dolphins (Brewer et al., 2007). Protected and migratory species are also known to pass through the region, including whale sharks and cetaceans.
Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula	-	-	V	Unique seafloor feature with ecological properties of regional significance The feature is an area of moderately enhanced productivity, attracting aggregations of fish and higher-order consumers such as large predatory	The canyons are associated with upwelling as they channel deep water from the Cuvier Abyssal Plain up onto the slope. This nutrient-rich water interacts with the Leeuwin Current at the canyon heads (DSEWPAC, 2012a). Aggregations of whale sharks, manta rays, sea snakes, sharks, large predatory fish, and seabirds are known to occur in this area.

KEF Name	Woodside Activity Area			Values ¹	Description
	Browse	NWS/S	NW Cape		
				fish, sharks, toothed whales and dolphins Likely to be important due to their historical association with sperm whale aggregations	
Commonwealth waters adjacent to Ningaloo Reef	-	-	✓	High productivity and diverse aggregations of marine life The Commonwealth waters adjacent to Ningaloo Reef and associated canyons and plateau are interconnected and support the high productivity and species richness of Ningaloo Reef, globally significant as the only extensive coral reef in the world that fringes the west coast of a continent	The Leeuwin and Ningaloo currents interact, leading to areas of enhanced productivity in the Commonwealth waters adjacent to Ningaloo Reef. Aggregations of whale sharks, manta rays, humpback whales, sea snakes, sharks, large predatory fish, and seabirds are known to occur in this area (DSEWPAC, 2012a). The spatial boundary of this KEF, as defined in the NCVA, is defined as the waters contained in the existing Ningaloo AMP provided in Section 10 .
Wallaby Saddle	-	-	✓	High productivity and aggregations of marine life: Representing almost the entire area of this type of geomorphic feature in the NWMR. It is a unique habitat that neither occurs anywhere else nearby (within hundreds of kilometres) nor with as large an area (Falkner et al. 2009)	The Wallaby Saddle may be an area of enhanced productivity. Historical whaling records provide evidence of sperm whale aggregations in the area of the Wallaby Saddle, possibly due to the enhanced productivity of the area and aggregations of baitfish (DSEWPAC, 2012a).

^{1.} Values description sourced from Marine bioregional plan for the North-west Marine Region (DSEWPAC, 2012a) and the Department of Agriculture, Water and the Environment (DAWE) SPRAT database.

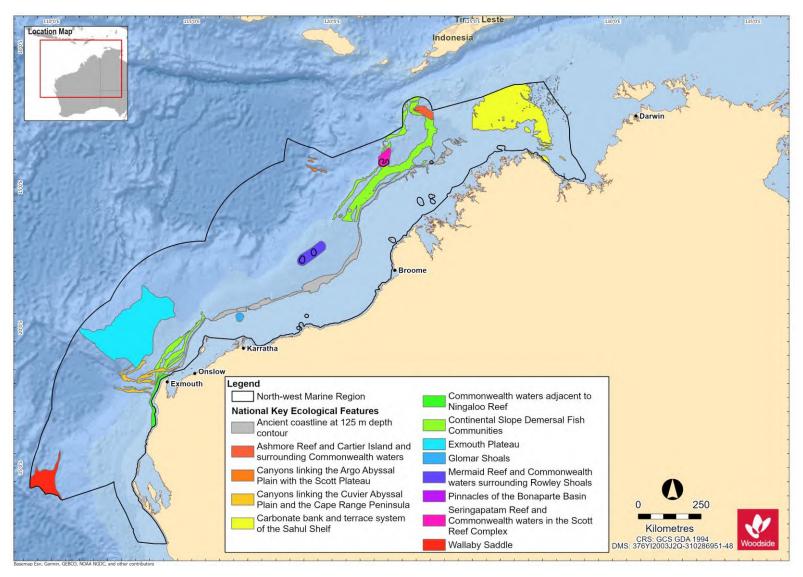


Figure 9-1 Key Ecological Features (KEFs) within the NWMR.

Table 9-2 Key Ecological Features (KEF) within the SWMR

KEF Name	Values ¹	Description
Albany Canyons group and adjacent shelf break	High productivity and aggregations of marine life, and unique seafloor feature with ecological properties of regional significance Both benthic and demersal habitats within the feature are of conservation value	The Albany Canyons group is thought to be associated with small, periodic subsurface upwelling events, which may drive localised regions of high productivity. The canyons are known to be a feeding area for sperm whale and sites of orange roughy aggregations. Anecdotal evidence also indicates that this area supports fish aggregations that attract large predatory fish and sharks.
Ancient coastline at 90-120 m depth	Relatively high productivity and aggregations of marine life, and high levels of biodiversity and endemism The feature creates topographic complexity, that may facilitate benthic biodiversity and enhanced biological productivity	Benthic biodiversity and productivity occur where the ancient coastline forms a prominent escarpment, such as in the western Great Australian Bight, where the sea floor is dominated by sponge communities of significant biodiversity and structural complexity.
Cape Mentelle upwelling	Facilitates nutrient upwelling, supporting high productivity and diverse aggregations of marine life	The Cape Mentelle upwelling draws relatively nutrient-rich water from the base of the Leeuwin Current, up the continental slope and onto the inner continental shelf, where it results in phytoplankton blooms at the surface. The phytoplankton blooms provide the basis for an extended food chain characterised by feeding aggregations of small pelagic fish, larger predatory fish, seabirds, dolphins and sharks.
Commonwealth marine environment surrounding the Houtman Abrolhos Islands (and adjacent shelf break)	High levels of biodiversity and endemism within benthic and pelagic habitats	The Houtman Abrolhos Islands and surrounding reefs support a unique mix of temperate and tropical species, resulting from the southward transport of species by the Leeuwin Current over thousands of years. The Houtman Abrolhos Islands are the largest seabird breeding station in the eastern Indian Ocean. They support more than one million pairs of breeding seabirds.

KEF Name	Values¹	Description
Commonwealth marine environment surrounding the Recherche Archipelago	Aggregations of marine life and high levels of biodiversity and endemism within benthic and demersal communities	The Recherche Archipelago is the most extensive area of reef in the SWMR. Its reef and seagrass habitat supports a high species diversity of warm temperate species, including 263 known species of fish, 347 known species of molluscs, 300 known species of sponges, and 242 known species of macroalgae. The islands also provide haul-out (resting areas) and breeding sites for Australian sea lions and New Zealand fur seals.
Commonwealth marine environment within and adjacent to the west-coast inshore lagoons	High productivity and aggregations of marine life within benthic and pelagic habitats Important for benthic productivity and recruitment for a range of marine species	These lagoons are important for benthic productivity, including macroalgae and seagrass communities, and breeding and nursery aggregations for many temperate and tropical marine species. They are important areas for the recruitment of commercially and recreationally important fish species. Extensive schools of migratory fish visit the area annually, including herring, garfish, tailor and Australian salmon.
Commonwealth marine environment within and adjacent to Geographe Bay	High productivity and aggregations of marine life, and high levels of biodiversity, recruitment within benthic and pelagic communities	Geographe Bay is known for its extensive beds of tropical and temperate seagrass that support a diversity of species, many of them not found anywhere else. The bay provides important nursery habitat for many species. Juvenile dusky whaler sharks use the shallow seagrass habitat as nursery grounds for several years, before ranging out to adult feeding grounds along the shelf break. The seagrass also provides valuable habitat for fish and invertebrates (Carruthers <i>et al.</i> , 2007). It is also an important resting area for migratory humpback whales.
Diamantina Fracture Zone	Unique seafloor feature with ecological properties of regional significance which apply to its benthic and demersal habitats	The Diamantina Fracture Zone is a rugged, deep- water environment of seamounts and numerous closely spaced troughs and ridges. Very little is known about the ecology of this remote, deep- water feature, but marine experts suggest that its size and physical complexity mean that it is likely to support deep-water communities characterised by high species diversity, with many species found nowhere else.
Naturaliste Plateau	Unique seafloor feature with ecological properties of regional significance including high species diversity and endemism which apply to its benthic and demersal habitats	The Naturaliste Plateau is Australia's deepest temperate marginal plateau. The combination of its structural complexity, mixed water dynamics and relative isolation indicate that it supports deep- water communities with high species diversity and endemism.
Perth Canyon and adjacent shelf break, and other west-coast canyons	An area of higher productivity that attracts feeding aggregations of deep-diving mammals and large predatory fish. It is also recognised as a unique seafloor feature with ecological properties of regional significance	The Perth Canyon is the largest known undersea canyon in Australian waters. Deep ocean currents rise to the surface, creating a nutrient-rich cold- water habitat attracting feeding aggregations of deep-diving mammals, such as pygmy blue whales and large predatory fish that feed on aggregations of small fish, krill and squid.

KEF Name	Values ¹	Description
Western demersal slope and associated fish communities of the Central Western Province	Provides important habitat for demersal fish communities and supports species groups that are nationally or regionally important to biodiversity	The western demersal slope provides important habitat for demersal fish communities, with a high level of diversity and endemism. A diverse assemblage of demersal fish species below a depth of 400 m is dominated by relatively small benthic species such as grenadiers, dogfish and cucumber fish. Unlike other slope fish communities in Australia, many of these species display unique physical adaptations to feed on the sea floor (such as a mouth position adapted to bottom feeding), and many do not appear to migrate vertically in their daily feeding habits.
Western rock lobster	A species that plays a regionally important ecological role	This species is the dominant large benthic invertebrate in the region. The lobster plays an important trophic role in many of the inshore ecosystems of the SWMR. Western rock lobsters are an important part of the food web on the inner shelf, particularly as juveniles.

T. Values description sourced from Marine bioregional plan for the South-west Marine Region (DSEWPAC, 2012b) and the Department of Agriculture, Water and the Environment (DAWE) SPRAT database

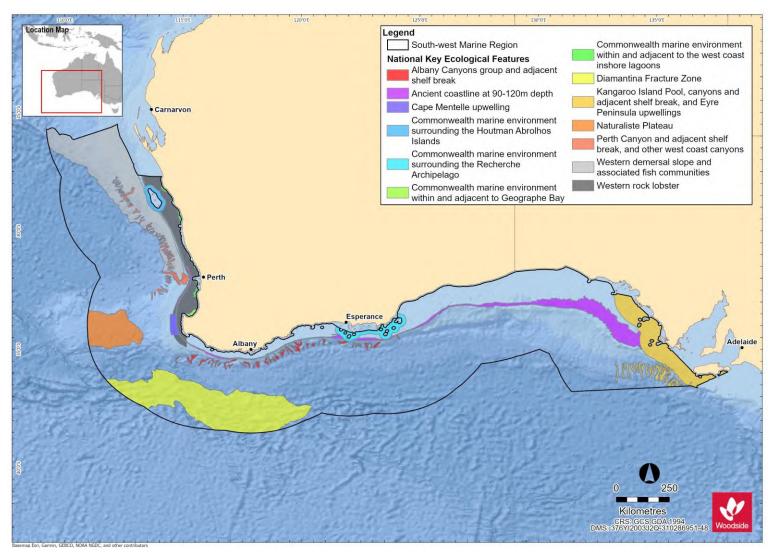


Figure 9-2. Key Ecological Features (KEFs) within the SWMR

Table 9-3 Key Ecological Features (KEF) within the NMR

WEE Name	Values ¹	Description
KEF Name	values	Description
Carbonate bank and terrace system of the Van Diemen Rise	Important for its role in enhancing biodiversity and local productivity relative to its surrounds and for supporting relatively high species diversity The feature has been identified as a sponge biodiversity hotspot (Przeslawski et al. 2014)	The bank and terrace system of the Van Diemen Rise is part of the larger system associated with the Sahul Banks to the north and Londonderry Rise to the east; it is characterised by terrace, banks, channels and valleys. The variability in water depth and substrate composition may contribute to the presence of unique ecosystems in the channels. Species present include sponges, soft corals and other sessile filter feeders associated with hard substrate sediments of the deep channels; epifauna and infauna include polychaetes and ascidians. Olive ridley turtles, sea snakes and sharks are also found associated with this feature.
Gulf of Carpentaria basin	Regional importance for biodiversity, endemism and aggregations of marine life relevant to benthic and pelagic habitats	The Gulf of Carpentaria basin is one of the few remaining near-pristine marine environments in the world. Primary productivity in the Gulf of Carpentaria basin is mainly driven by cyanobacteria that fix nitrogen but is also strongly influenced by seasonal processes. The soft sediments of the basin are characterised by moderately abundant and diverse communities of infauna and mobile epifauna dominated by polychaetes, crustaceans, molluscs, and echinoderms. The basin also supports assemblages of pelagic fish species including planktivorous and schooling fish, with top predators such as shark, snapper, tuna, and mackerel.
Gulf of Carpentaria coastal zone	High productivity, aggregations of marine life (including several endemic species) and high biodiversity compared to broader region	Nutrient inflow from rivers adjacent to the NMR generates higher productivity and more diverse and abundant biota within the Gulf of Carpentaria coastal zone than elsewhere in the region. The coastal zone is near pristine and supports many protected species such as marine turtles, dugongs, and sawfishes. Ecosystem processes and connectivity remain intact; river flows are mostly uninterrupted by artificial barriers and healthy, diverse estuarine and coastal ecosystems support many species that move between freshwater and saltwater environments.
Pinnacles of the Bonaparte Basin	Unique seafloor feature with ecological properties of regional significance Provide areas of hard substrate in an otherwise soft sediment environment and so are important for sessile species Recognised as a biodiversity hotspot for sponges The Pinnacles of the Bonaparte Basin KEF is located within both the NWMR and NMR (refer Table 9-1)	Covering more than 520 km² within the Bonaparte Basin, this feature contains the largest concentration of pinnacles along the Australian margin. The Pinnacles of the Bonaparte Basin are thought to be the eroded remnants of underlying strata; it is likely that the vertical walls generate local upwelling of nutrient-rich water, leading to phytoplankton productivity that attracts aggregations of planktivorous and predatory fish, seabirds and foraging turtles.

KEF Name	Values ¹	Description
Plateaux and saddle north-west of the Wellesley Islands	High species abundance, diversity and endemism of marine life	Abundance and species density are high in the plateaux and saddle as a result of increased biological productivity associated with habitats rather than currents. Submerged reefs support corals that are typical of northern Australia, including corals that have bleach-resistant zooxanthellae; and particular reef fish species that are different to those found elsewhere in the Gulf of Carpentaria. Species present include marine turtles and reef fish such as coral trout, cod, mackerel, and shark. Seabirds frequent the plateaux and saddle, most likely due to the presence of predictable food resources for feeding offspring.
Shelf break and slope of the Arafura Shelf	The Shelf break and slope of the Arafura Shelf is defined as a key ecological feature for its ecological significance associated with productivity emanating from the slope It also forms part of a unique biogeographic province (Last <i>et al.</i> , 2005)	The shelf break and slope of the Arafura Shelf is characterised by continental slope and patch reefs and hard substrate pinnacles. The ecosystem processes of the feature are largely unknown in the region; however, the Indonesian Throughflow and surface wind-driven circulation are likely to influence nutrients, pelagic dispersal and species and biological productivity in the region. Biota associated with the feature is largely of Timor–Indonesian Malay affinity.
Submerged coral reefs of the Gulf of Carpentaria	High aggregations of marine life, biodiversity and endemism Twenty per cent of the reefs found in the NMR are situated within this KEF (Harris et al., 2007)	The submerged coral reefs of the Gulf of Carpentaria are characterised by submerged patch, platform and barrier reefs that form a broken margin around the perimeter of the Gulf of Carpentaria basin, rising from the sea floor at depths of 30–50 m. These reefs provide breeding and aggregation areas for many fish species including mackerel and snapper and offer refuges for sea snakes and apex predators such as sharks. Coral trout species that inhabit the submerged reefs are smaller than those found in the Great Barrier Reef and may prove to be an endemic sub-species.
Tributary Canyons of the Arafura Depression	High productivity and high levels of species diversity and endemism of marine life within the benthic and pelagic habitats of the feature	The tributary canyons are approximately 80–100 m deep and 20 km wide. The largest of the canyons extend some 400 km from Cape Wessel into the Arafura Depression, and are the remnants of a drowned river system that existed during the Pleistocene era. Sediments in this feature are mainly calcium-carbonate rich, although sediment type varies from sandy substrate to soft muddy sediments and hard, rocky substrate. Marine turtles, deep sea sponges, barnacles and stalked crinoids have all been identified in the area.

^{1.} Values description sourced from Marine bioregional plan for the North Marine Region (DSEWPAC, 2012c) and Department of Agriculture, Water and the Environment (DAWE) SPRAT database.

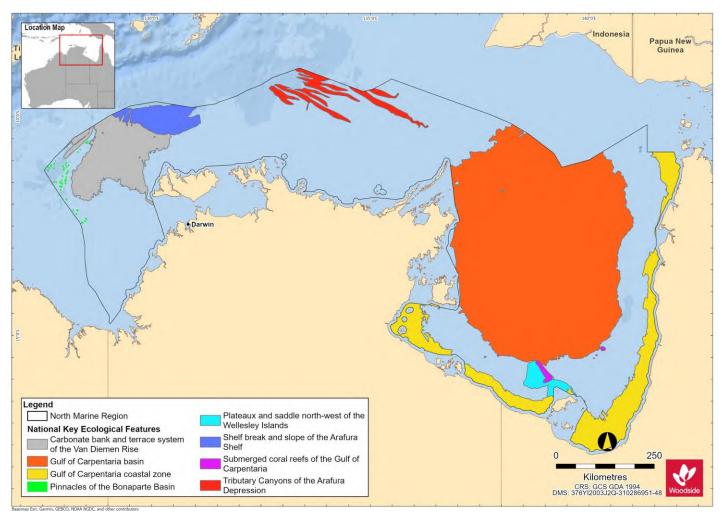


Figure 9-3. Key Ecological Features (KEFs) within the NMR

10. PROTECTED AREAS

10.1 Regional Context

Protected areas included World Heritage Properties, National Heritage Places, Wetlands of International Importance, Australian Marine Parks, State Marine Parks and Reserves, Threatened Ecological Communities and the Australian Whale Sanctuary. The PMST Reports (**Appendix A**) shows that there are twenty-nine protected areas found in the NWMR, eighteen in the SWMR and nine in the NMR.

Table 10-1, Table 10-2 and **Table 10-3** outline the protected areas of each of the marine regions NWMR, SWMR and NMR, respectively.

10.2 World Heritage Properties

Properties nominated for World Heritage listing are inscribed on the list only after they have been carefully assessed as representing the best examples of the world's cultural and natural heritage. Only World Heritage listings classed as natural are discussed in this section. World Heritage sites classed as cultural are discussed in **Section 11**.

The list of Australia's World Heritage Properties and the PMST Reports (**Appendix A**) show two World Heritage Properties within the NWMR (**Table 10-1**), no World Heritage Properties within the SWMR (**Table 10-2**), and though not reported in the NMR PMST Report, Kakadu National Park and World Heritage Area is included in **Table 10-3**.

10.3 National and Commonwealth Heritage Places - Natural

The National Heritage List is Australia's list of natural, historic, and Indigenous places of outstanding significance to the nation. The National Heritage List Spatial Database describes the place name, class (Indigenous, natural, historic), and status. Commonwealth Heritage Places are a collection of sites recognised for their Indigenous, historical and/or natural values which are owned or controlled by the Australian Government.

Only National and Commonwealth Heritage Places classed as natural are discussed in this section. Heritage Places classed as indigenous or historic are discussed in **Section 11**.

A search of the National Heritage List Spatial Database and the PMST Reports (**Appendix A**) identified three natural National Heritage Places in the NWMR (**Table 10-1**), three in the SWMR (**Table 10-2**) and for the NMR, Kakadu National Park (not included in the PMST report) is included in **Table 10-3**.

A search of the Commonwealth Heritage List identified four natural commonwealth heritage places within the NWMR (**Table 10-1**).

10.4 Wetlands of International Importance (listed under the Ramsar Convention)

Australia has 65 Ramsar wetlands that cover >8.3 million ha. Ramsar wetlands are those that are representative, rare, or unique wetlands, or that are important for conserving biological diversity.

The List of Wetlands of International Importance held under the Ramsar Convention and the PMST Reports (**Appendix A**) identified four Ramsar Sites with coastal features within the NWMR (**Table 10-1**), four in the SWMR (**Table 10-2**) and two for the New Territory, included for the NMR (**Table 10-3**).

10.5 Australian Marine Parks

Australian Marine Parks (AMPs), proclaimed under the EPBC Act in 2007 and 2013, are located in Commonwealth waters that start at the outer edge of State and Territory waters, generally three

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nautical miles (~5.5 km) from the shore, and extend to the outer boundary of Australia's EEZ, 200 nm (~370 km) from the shore.

PMST Reports (**Appendix A**) show sixteen AMPs within the NWMR (**Table 10-1**), ten within the SWMR (**Table 10-2**) and eight within the NMR (**Table 10-3**).

10.6 Threatened Ecological Communities

No Threatened Ecological Communities (TECs) as listed under the EPBC Act are known to occur within the marine waters of the NWMR, SWMR or NMR as indicated by the PMST Reports (**Appendix A**).

10.7 Australian Whale Sanctuary

The Australian Whale Sanctuary has been established to protect all whales and dolphins found in Australian waters. Under the EPBC Act all cetaceans (whales, dolphins and porpoises) are protected in Australian waters.

The Australian Whale Sanctuary includes all Commonwealth waters from the three nautical mile State/Territory waters limit out to the boundary of the EEZ (i.e. out to 200 nm and further in some places). Within the Sanctuary it is an offence to kill, injure or interfere with a cetacean. Severe penalties apply to anyone convicted of such offences.

10.8 State Marine Parks and Reserves

State Marine Parks and Reserves, proclaimed under the *Conservation and Land Management Act* 1984 (CALM Act), are located in State waters and vested in the WA Conservation and Parks Commission. State Marine Parks and Reserves of Western Australia have been considered, with 14 occurring in the NWMR (**Table 10-1**) and six occurring in the SWMR (**Table 10-2**).

10.9 Summary of Protected Areas within the NWMR

Table 10-1 Protected Areas within the NWMR

	Woodside Activity Area			IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
				World He	ritage Properties	
Shark Bay World Heritage Property	-	-	√		The Shark Bay World Heritage Property is adjacent to the Shark Bay AMP and was included on the World Heritage List in 1991.	Universal values of the Shark Bay World Heritage Property include large and diverse seagrass beds, stromatolites and populations of dugong and threatened species. Inscribed under Natural Criteria vii, viii, ix and x.
The Ningaloo Coast World Heritage Property	-	-	✓		The Ningaloo Coast World Heritage Property lies within the Ningaloo AMP and was included on the World Heritage List in 2011.	Universal values of the Ningaloo Coast World Heritage Property include high marine species diversity and abundance; in particular, Ningaloo Reef supports both tropical and temperate marine reptiles and mammals. Inscribed under Natural Criteria vii and x.
				National Heri	tage Places - Natural	
Shark Bay	-	-	√		The Shark Bay National Heritage Place consists of the same area included in the Shark Bay World Heritage Property (refer above) and was established on the National Heritage List in 2007.	The national heritage place has a number of exceptional natural features, including one of the largest and most diverse seagrass beds in the world, colonies of stromatolites and rich marine life including a large population of dugongs, and also provides a refuge for a number of other globally threatened species. Shark Bay meets the national heritage listing criteria a, b, c, d, e, f, g, h and i.
The Ningaloo Coast	-	-	✓		The Ningaloo Coast National Heritage Place consists of the same area included in the Ningaloo	The Ningaloo Coast contains one of the best developed near-shore reefs in the world, being home to rugged limestone peninsulas, spectacular coral and sponge gardens and the whale shark.

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	Woodsid	de Activity	y Area	IUCN Protected Area Category* or Relevant Park Zone		
Protected Area	Browse	NWS/S	NW Cape		Description	Conservation Values
					Coast World Heritage Property (refer above) and was established on the National Heritage List in 2010.	The Ningaloo Coast meets the national heritage listing criteria a, b, c, d, and f.
The West Kimberley	✓	✓	-		The West Kimberley National Heritage Place covers an area of around 192,000 km² located in the north-west of Australia from Broome to Wyndham, and was established on the National Heritage List in 2011.	The Kimberley plateau, north-western coastline and northern rivers of the West Kimberley provide a vital refuge for many native plants and animals that are found nowhere else or which have disappeared from much of the rest of Australia. In addition, Roebuck Bay is internationally recognised as one of Australia's most significant sites for migratory wading birds. The national heritage place also contains a remarkable history of Aboriginal occupation, with many places of indigenous sacred value. The West Kimberley meets the national heritage listing criteria a, b, c, d, e, f, g, h and i.
				Commonwealth I	Heritage Places - Natural	
Mermaid Reef – Rowley Shoals	-	✓	-	N/A	The Mermaid Reef – Rowley Shoals Commonwealth Heritage Place is located within the boundary of the Mermaid Reef Marine National Nature Reserve. The site was listed as a Commonwealth Heritage Place in 2004.	The Mermaid Reef-Rowley Shoals Commonwealth Heritage Place is regionally important for the diversity of its fauna and together with Clerke and Imperieuse reefs, has biogeographical significance due to the presence of species which are at, or close to, the limits of their geographic ranges, including fishes known previously only from Indonesian waters. Rowley Shoals is important for benchmark studies as one of the few places off the north-west coast of Western Australia which have been the site of major biological collection trips by the WA Museum.

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	Woodsi	de Activit	y Area	IUCN Protected Area Category* or Relevant Park Zone		
Protected Area	Browse	NWS/S	NW Cape		Description	Conservation Values
Ashmore Reef National Nature Reserve	*	-	-		The Ashmore Reef Commonwealth Heritage Place is located within the boundary of the Ashmore Reef Marine Park (refer AMPs below). The site was listed as a Commonwealth Heritage Place in 2004.	Ashmore Reef has major significance as a staging point for wading birds migrating between Australia and the Northern Hemisphere and supports high concentrations of breeding seabirds, many of which are nomadic and typically breed on small isolated islands. Ashmore Reef is an important scientific reference area for migratory seabirds, sea snakes and marine invertebrates. The Ashmore Reef Commonwealth Heritage Place is significant for its history of human occupation and use. The island is believed to have been visited by Indonesian fisherman since the early eighteenth century. The islands were used both for fishing and as a staging point for voyages to the southern reefs off Australia's coast.
Scott Reef and Surrounds – Commonwealth Area	V	-	-		Scott Reef and Surrounds Commonwealth Heritage Place is located within the Western Australian Coastal Waters surrounding North and South Scott Reef. The site was listed as a Commonwealth Heritage Place in 2004.	The Scott Reef and Surrounds Commonwealth Heritage Place is regionally important for the diversity of its fauna and has biogeographical significance due to the presence of species which are at, or close to, the limits of their geographic ranges, including fish known previously only from Indonesian waters. Scott Reef is recognised as important for scientific research and benchmark studies due to its age, the extensive documentation of its geophysical and physical environmental characteristics and its use as a site of major biological collection trips and surveys by the WA Museum and the Australian Institute of Marine Science.

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	Woodsid	de Activit	y Area	IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW or Relevant Park Zone	Description	Conservation Values	
Ningaloo Marine Area – Commonwealth Waters	-	-	~		The Ningaloo Marine Area Commonwealth Heritage Place is located within the Commonwealth waters of the Ningaloo Marine Park (refer AMPs below). The site was listed as a Commonwealth Heritage Place in 2004.	The Ningaloo Marine Area Commonwealth Heritage Place provides a migratory pathway for humpback whales and foraging habitat for whale sharks. The place is an important breeding area for billfish and manta ray. The Ningaloo Marine Area provides opportunities for scientific research relating to aspects of the area's unique features including tourism (marine ecology, whales, turtles, whale sharks, fish and oceanography.
				Wetlands of Interna	tional Importance (Ramsa	ar)
Ashmore Reef National Nature Reserve	√	-	-	Ramsar	The Ashmore Reef Ramsar site is located within the boundary of the Ashmore Reef Marine Park (refer AMPs below). The site was listed under the Ramsar Convention in 2002.	Ashmore Reef Ramsar site supports internationally significant populations of seabirds and shorebirds, is important for turtles (green, hawksbill and loggerhead) and dugong, and has the highest diversity of hermatypic (reefbuilding) corals on the WA coast. It is known for its abundance and diversity of sea snakes. However, since 1998 populations of sea snakes at Ashmore Reef have been in decline.
Eighty Mile Beach	-	V	-	Ramsar	The Eighty Mile Beach Ramsar site covers an area of 1250 km², located along a long section of the Western Australian coastline adjacent to the Eighty Mile Beach AMP (refer below).	The Eighty Mile Beach Ramsar site includes saltmarsh and a raised peat bog more than 7000 years old. The site contains the most important wetland for waders in north-western Australia, supporting up to 336,000 birds, and is especially important as a land fall for waders migrating south for the austral summer.
Roebuck Bay	-	✓	-	Ramsar	The Roebuck Bay Ramsar site covers an area of 550	The Roebuck Bay Ramsar site is recognised as one of the most important areas for migratory shorebirds in Australia.

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	Woodside Activity Area			IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					km², located south of Broome and adjacent to the Roebuck AMP (refer below).	The site regularly supports over 100,000 waterbirds, with numbers being highest in the austral spring when migrant species breeding in the Palearctic stop to feed during migration.
Ord River Floodplain	✓			Ramsar	The Ord River Floodplain Ramsar Site is in the East Kimberley region and encompasses an extensive system of river, seasonal creek, tidal mudflat, and floodplain wetlands. The Ramsar Site is a nursery, feeding and/or breeding ground for migratory birds, waterbirds, fish, crabs, prawns, and crocodiles.	The site represents the best example of wetlands associated with the floodplain and estuary of a tropical river system in the Tanami-Timor Sea Coast Bioregion in the Kimberley. In addition, the False Mouths of the Ord are the most extensive mudflat and tidal waterway complex in Western Australia.
				Wetlands of Nationa	al Importance (DAWE, 201	9)
Ashmore Reef	√	-	-		Ashmore Reef is a shelf- edge platform reef located among the Sahul Banks of north-western Australia. It covers an area of 583 km ² and consists of three islets surrounded by intertidal reef and sand flats.	These islets are major seabird nesting sites with 20 breeding species recorded to date. The total bird population has been estimated to exceed 100,000 during the peak breeding season. The marine reserve also has the highest diversity of marine fauna of the reefs on the NWS and differs from other reefs and coastal areas in the region. The area meets criteria 1, 3, 4 and 5 for inclusion on the Directory of Important Wetlands in Australia.
Mermaid Reef	-	✓	-		Mermaid Reef Marine Park covers an area of around 540 km², located ~280 km west north-west of Broome, and is the most north-easterly atoll of the Rowley Shoals.	The reefs of the Mermaid Reef Marine Park have biogeographic value due to the presence of species that are at or close to the limit of their distribution. The coral communities are one of the special values of Mermaid Reef. The area meets criteria 1, 2 and 3 for inclusion on the Directory of Important Wetlands in Australia.

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	Woodsid	de Activity	y Area	IUCN Protected Area Category* or Relevant Park Zone		
Protected Area	Browse	NWS/S	NW Cape		Description	Conservation Values
Exmouth Gulf East	-	-	✓		Exmouth Gulf East covers an area of 800 km² and includes wetlands in the eastern part of Exmouth Gulf, from Giralia Bay; to Urala Creek, Locker Point.	The Exmouth Gulf East is an outstanding example of tidal wetland systems of low coast of north-west Australia, with well- developed tidal creeks, extensive mangrove swamps and broad saline coastal flats. The site is one of the major population centres for dugong in WA and its seagrass beds and extensive mangroves provide nursery and feeding areas for marine fishes and crustaceans in the Gulf. The area meets criteria 1, 2 and 3 for inclusion on the Directory of Important Wetlands in Australia.
Hamelin Pool	-	-	√		Hamelin Pool covers an area of 900 km² in the far south-east part of Shark Bay.	Hamelin Pool is an outstanding example of a hypersaline marine embayment and supports extensive microbialite (subtidal stromatolite) formations, which are the most abundant and diverse examples of growing marine microbialites in the world. The area meets criteria 1 and 6 for inclusion on the Directory of Important Wetlands in Australia.
Shark Bay East	-	-	✓		Shark Bay East covers a 250 km area of coastline comprising tidal wetlands, and marine waters less than 6 m deep at low tide, in the east arm of Shark Bay.	The site is an outstanding example of a very large, shallow marine embayment, with particularly extensive occurrence of seagrass beds and substantial areas of intertidal mud/sandflats and mangrove swamp. The site supports what is probably the world's largest discrete population of dugong; it is also a major nursery and/or feeding area for turtles, rays, sharks, other fishes, prawns and other marine fauna; and is a major migration stop-over area for shorebirds. The area meets criteria 1, 2, 3, 4, 5 and 6 for inclusion on the Directory of Important Wetlands in Australia.
				Australian Mar	ine Parks (DNP, 2018a)	
Abrolhos Marine Park	-	-	√	II, IV, VI	Abrolhos Marine Park is located adjacent to the WA Houtman Abrolhos Islands, covering a large offshore	Abrolhos Marine Park is significant because it contains habitats, species and ecological communities associated with four bioregions:

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	Woodsi	de Activity	y Area	IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					area of 88,060 km² extending from the WA State waters boundary to the edge of Australia's EEZ. The Abrolhos Marine Park is located within both the NWMR and SWMR.	Central Western Province Central Western Shelf Province Central Western Transition South-west Shelf Transition It includes seven KEFs: Commonwealth marine environment surrounding the Houtman Abrolhos Islands; Demersal slope and associated fish communities of the Central Western Province; Mesoscale eddies; Perth Canyon and adjacent shelf break, and other west-coast canyons; Western rock lobster; Ancient coastline at 90-120 m depth; and Wallaby Saddle. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging and breeding habitat for seabirds, foraging habitat for Australian sea lions and white sharks, and a migratory pathway for humpback and pygmy blue whales. The AMP is adjacent to the northernmost Australian sea lion breeding colony in Australia on the Houtman Abrolhos Islands.
Carnarvon Canyon Marine Park	-	-	~	IV	Carnarvon Canyon Marine Park covers an area of 6177 km², located ~300 km north-west of Carnarvon.	Carnarvon Canyon Marine Park is significant because it contains habitats, species and ecological communities associated with the Central Western Transition bioregion. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. There is limited information about species' use of this AMP.
Shark Bay Marine Park	-	-	~	VI	Shark Bay Marine Park covers an area of 7443 km² located ~60 km offshore of Carnarvon, adjacent to the Shark Bay World Heritage Property and National Heritage Place.	Shark Bay Marine Park is significant because it contains habitats, species and ecological communities associated with two bioregions: • Central Western Shelf Province • Central Western Transition. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under

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	Woodside Activity Area			IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park	Description	Conservation Values
						the EPBC Act. BIAs within the AMP include breeding habitat for seabirds, internesting habitat for marine turtles, and a migratory pathway for humpback whales.
Gascoyne Marine Park	-	-	✓	II, IV, VI	Gascoyne Marine Park covers an area of 81,766 km², located ~20 km off the west coast of the Cape Range Peninsula, adjacent to the Ningaloo Marine Park.	Gascoyne Marine Park is significant because it contains habitats, species and ecological communities associated with three bioregions: • Central Western Shelf Transition • Central Western Transition • Northwest Province. It includes four KEFs: Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula; Commonwealth waters adjacent to Ningaloo Reef; Continental slope demersal fish communities; and Exmouth Plateau. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding habitat for seabirds, internesting habitat for marine turtles, a migratory pathway for humpback whales, and foraging habitat and migratory pathway for pygmy blue whales.
Ningaloo Marine Park	-	-	✓	II, IV	Ningaloo Marine Park covers an area of 2435 km², stretching ~300 km along the west coast of the Cape Range Peninsula, and is adjacent to the WA Ningaloo Marine Park and Gascoyne Marine Park.	Ningaloo Marine Park is significant because it contains habitats, species and ecological communities associated with four bioregions: Central Western Shelf Transition Central Western Transition Northwest Province Northwest Shelf Province. It includes three KEFs: Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula; Commonwealth waters adjacent to Ningaloo Reef; and Continental slope demersal fish communities. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and

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	Woodsid	de Activity	y Area	IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
						or foraging habitat for seabirds, internesting habitat for marine turtles, a migratory pathway for humpback whales, foraging habitat and migratory pathway for pygmy blue whales, breeding, calving, foraging and nursing habitat for dugong and foraging habitat for whale sharks.
Montebello Marine Park	-	√	-	VI	Montebello Marine Park covers an area of 3413 km², located offshore of Barrow Island and 80 km west of Dampier extending from the WA State waters boundary, and is adjacent to the WA Barrow Island and Montebello Islands Marine Parks.	Montebello Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Province bioregion. It includes one KEF: Ancient coastline at 125 m depth contour. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding habitat for seabirds, internesting, foraging, mating, and nesting habitat for marine turtles, a migratory pathway for humpback whales and foraging habitat for whale sharks.
Dampier Marine Park	-	√	-	II, IV, VI	Dampier Marine Park covers an area of 1252 km², located ~10 km north- east of Cape Lambert and 40 km from Dampier extending from the WA State waters boundary.	Dampier Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Province bioregion. The AMP provides protection for offshore shelf habitats adjacent to the Dampier Archipelago, and the area between Dampier and Port Hedland, and is a hotspot for sponge biodiversity. The AMP supports a range of species including those listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and foraging habitat for seabirds, internesting habitat for marine turtles and a migratory pathway for humpback whales.
Eighty Mile Beach Marine Park	-	✓	-	VI	Eighty Mile Beach Marine Park covers an area of 10,785 km², located ~74 km north-east of Port Hedland, adjacent to the	Eighty Mile Beach Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Province and consists of shallow shelf habitats, including terrace, banks and shoals.

	Woodside Activity Area			IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					WA Eighty Mile Beach Marine Park.	The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding, foraging and resting habitat for seabirds, internesting and nesting habitat for marine turtles, foraging, nursing and pupping habitat for sawfishes and a migratory pathway for humpback whales.
Argo – Rowley Terrace Marine Park	*	*	-	II, VI, VI (Trawl)	Argo-Rowley Terrace Marine Park covers an area of 146,003 km², located ~270 km north- west of Broome, and extends to the limit of Australia's EEZ. The AMP is adjacent to the Mermaid Reef Marine Park and the WA Rowley Shoals Marine Park.	Argo—Rowley Marine Park is significant because it contains habitats, species and ecological communities associated with two bioregions: Northwest Transition Timor Province. It includes two KEFs: Canyons linking the Argo Abyssal Plain with the Scott Plateau; and Mermaid Reef and Commonwealth waters surrounding Rowley Shoals. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include resting and breeding habitat for seabirds and a migratory pathway for the pygmy blue whale.
Mermaid Reef Marine Park	-	✓	-	II	Mermaid Reef Marine Park covers an area of 540 km², located ~280 km northwest of Broome, adjacent to the Argo–Rowley Terrace Marine Park and ~13 km from the WA Rowley Shoals Marine Park. Mermaid Reef is one of three reefs forming the Rowley Shoals. The other two are Clerke Reef and Imperieuse Reef, to the	Mermaid Reef Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Transition. It includes one KEF: Mermaid Reef and Commonwealth waters surrounding Rowley Shoals. The Rowley Shoals have been described as the best geological examples of shelf atolls in Australian waters. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding habitat for seabirds and a migratory pathway for the pygmy blue whale.

	Woodsi	de Activit	y Area	IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					south-west of the AMP, which are included in the WA Rowley Shoals Marine Park.	
Roebuck Marine Park	-	✓	-	VI	Roebuck Marine Park covers an area of 304 km², located ~12 km offshore of Broome, and is adjacent to the WA Yawuru Nagulagun/Roebuck Bay Marine Park.	Roebuck Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Province and consists entirely of shallow continental shelf habitat. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and resting habitat for seabirds, foraging and internesting habitat for marine turtles, a migratory pathway for humpback whales and foraging habitat for dugong.
Kimberley Marine Park	V	✓	-	II, IV, VI	Kimberley Marine Park covers an area of 74,469 km², located ~100 km north of Broome, extending from the WA State waters boundary north from the Lacepede Islands to the Holothuria Banks offshore from Cape Bougainville.	Kimberley Marine Park is significant because it includes habitats, species and ecological communities associated with three bioregions: Northwest Shelf Province Northwest Shelf Transition Timor Province. It includes two KEFs: Ancient coastline at 125 m depth contour; and Continental slope demersal fish communities. The AMP supports a range of species, including protected species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and foraging habitat for seabirds, internesting and nesting habitat for marine turtles, breeding, calving and foraging habitat for inshore dolphins, calving, migratory pathway and nursing habitat for humpback whales, migratory pathway for pygmy blue whales, foraging habitat for dugong and foraging habitat for whale sharks.
Ashmore Reef Marine Park	√	-	-	Ia, IV	Ashmore Reef Marine Park covers an area of 583 km², located ~630 km north of	Ashmore Reef Marine Park is significant because it includes habitats, species and ecological communities associated with the Timor Province. It includes two KEFs:

	Woodsid	de Activit	y Area	IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					Broome and 110 km south of the Indonesian island of Roti. The AMP is located in Australia's External Territory of Ashmore and Cartier Islands and is within an area subject to a Memorandum of Understanding (MoU) between Indonesia and Australia, known as the MoU Box.	Ashmore Reef and Cartier Island and surrounding Commonwealth waters; and Continental slope demersal fish communities. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding, foraging and resting habitat for seabirds, resting and foraging habitat for migratory shorebirds, foraging, mating, nesting and internesting habitat for marine turtles, foraging habitat for dugong, and a migratory pathway for pygmy blue whales.
Cartier Island Marine Park	*	-	-	la	Cartier Island Marine Park covers an area of 172 km², located ~45 km south-east of Ashmore Reef Marine Park and 610 km north of Broome. It is also located in Australia's External Territory of Ashmore and Cartier Islands and within an area subject to an MoU between Indonesia and Australia, known as the MoU Box.	Cartier Island Marine Park is significant because it includes habitats, species and ecological communities associated with the Timor Province. It includes two key ecological features: Ashmore Reef and Cartier Island and surrounding Commonwealth waters and continental slope demersal fish communities. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and foraging habitat for seabirds, internesting, nesting and foraging habitat for marine turtles and foraging habitat for whale sharks. The AMP is also internationally significant for its abundance and diversity of sea snakes, some of which are listed species under the EPBC Act.
Joseph Bonaparte Gulf Marine Park	✓	-	-	VI	Joseph Bonaparte Gulf Marine Park covers an area of 8597 km² and is located ~15 km west of Wadeye, NT, and ~90 km north of Wyndham, WA, in the Joseph Bonaparte Gulf.	Joseph Bonaparte Gulf Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Transition bioregion. It includes one KEF: Carbonate bank and terrace system of the Sahul Shelf. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under

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	Woodside Activity Area			IUCN Protected Area Category*		
Protected Area	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					It is adjacent to the WA North Kimberley Marine Park. The Joseph Bonaparte Gulf Marine Park is located within both the NWMR and NMR.	the EPBC Act. BIAs within the AMP include foraging habitat for marine turtles and the Australian snubfin dolphin.
Oceanic Shoals Marine Park	✓	-	-	II, IV, VI	Oceanic Shoals Marine Park covers an area of 71,743 km² and is located west of the Tiwi Islands, ~155 km north-west of Darwin, NT and 305 km north of Wyndham, WA. The Oceanic Shoals Marine Park is located within both the NWMR and NMR.	Oceanic Shoals Marine Park is significant because it contains habitats, species and ecological communities associated with the Northwest Shelf Transition bioregion. It contains four KEFs: Carbonate bank and terrace systems of the Van Diemen Rise; Carbonate bank and terrace systems of the Sahul Shelf; Pinnacles of the Bonaparte Basin; and Shelf break and slope of the Arafura Shelf. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging and internesting habitat for marine turtles.
				State Marine	Parks and Reserves	
North Kimberley Marine Park	√	-	-	Sanctuary, Special Purpose and General Use Zones	The North Kimberley Marine Park covers approx. 18,450 km² with its south-western boundary located ~270 km north-east of Derby.	The coral reefs of the north Kimberley have the greatest diversity in Western Australia and are some of the most pristine and remarkable reefs in the world. The park surrounds more than 1000 islands and is home to listed species such as dugongs, marine turtles, and sawfishes (DPAW, 2016a).
Lalang-garram / Horizontal Falls Marine Park and North Lalang-garram Marine Park (jointly managed)	✓	•	-	Sanctuary, Special Purpose and General Use Zones	The Lalang-garram / Horizontal Falls Marine Park covers ~3530 km² from Talbot Bay in the west and Glenelg River in the east. The North Lalang-garram Marine Park covers ~1100	The Lalang-garram / Horizontal Falls Marine Park's most celebrated attraction is created by massive tides of up to 10 m and narrow gaps in two parallel tongues of land meaning the tide falls faster than the water can escape, producing 'horizontal falls'. There are also islands with fringing coral reefs and mangrove-lined creeks and bays. The North Lalang-garram Marine Park has a number of islands fringed with coral reef and has been identified as an

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Protected Area	Woodside Activity Area			IUCN Protected Area Category*		
	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
					km² between Camden Sound and North Kimberley Marine Parks.	ecological hotspot and supports more than 1% of the world's population of brown boobies, with up to 2000 breeding pairs. About 500 pairs of crested terns also nest on the island (DPAW, 2016b).
Lalang-garram / Camden Sound Marine Park	✓	-	-	Sanctuary, Special Purpose and General Use Zones	Lalang-garram / Camden Sound Marine Park covers 7050 km² located about 150 km north of Derby.	The Lalang-garram / Camden Sound Marine Park is the most important humpback whale nursery in the Southern Hemisphere. It also features the spectacular coastal Montgomery Reef. The marine park is home to six species of threatened marine turtle. Australian snubfin and Indo-Pacific humpback dolphins, dugongs, saltwater crocodiles, and several species of sawfish (DPAW, 2013).
Rowley Shoals Marine Park	-	✓	-	Sanctuary, Recreation and General Use Zones	The Rowley Shoals comprise of three reef systems, Mermaid Reef, Clerke Reef and Imperieuse Reef, all 30-40 km apart. These reef systems are located ~300 km west north-west of Broome.	The three coral atolls of the Rowley Shoals Marine Park comprise of shallow lagoons inhabited by diverse corals and abundant marine life, each covering around 80 km² at the edge of Australia's continental shelf. Further offshore, the seafloor slopes away to the abyssal plain, some 6000 m below. Undersea canyons slice the slope; these features are commonly associated with diverse communities of deep-water corals and sponges and create localised upwellings that aggregate pelagic species like tunas and billfish (DEC, 2007a).
Yawuru Nagulagun / Roebuck Bay Marine Park	-	V	-	Special Purpose Zone	Yawuru Nagulagun / Roebuck Bay Marine Park is a series of intertidal flats lying on the coast to the south-east of Broome.	Roebuck Bay is an internationally significant wetland and one of the most important feeding grounds for migratory shorebirds in Australia. Australian snubfin and Australian humpback dolphins frequent the waters and humpback whales pass through on their annual migration. Flatback turtles nest on the shores and are found in the bay's waters with other sea turtle species. Seagrass and macroalgae communities provide food for protected species such as the dugong and flatback turtle (DPAW, 2016c).
Eighty Mile Beach Marine Park	-	√	-	Sanctuary, Recreation, Special	Eighty Mile Beach Marine Park covers ~2000 km² stretching across 220km of	Eighty Mile Beach Marine Park is one of the world's most important feeding grounds for small wading birds that migrate to the area each summer, travelling from countries

Protected Area	Woodside Activity Area			IUCN Protected Area Category*		
	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
				Purpose and General Use Zones	coastline between Port Hedland and Broome.	thousands of kilometres away. The marine park is a major nesting area for flatback turtles which are found only in northern Australia. Sawfishes, dugongs, dolphins and millions of invertebrates inhabit the sand and mud flats, seagrass meadows, coral reefs and mangroves (DPAW, 2014).
Montebello Islands Marine Park, Barrow Island Marine Park and Barrow Island Marine Management Area (jointly managed)	-	✓	-	Sanctuary, Recreation, General Use and Special Purpose Zones	The Montebello Islands Marine Park, Barrow Island Marine Park and Barrow Island Marine Management Area are located off the north-west coast of WA, ~1600 km north of Perth, and cover areas of ~583 km², 42 km² and 1,147 km², respectively.	The Montebello/Barrow islands marine conservation reserves have very complex seabed and island topography, resulting in a myriad of different habitats subtidal coral reefs, macroalgal and seagrass communities, subtidal soft-bottom communities, rocky shores and intertidal reef platforms, which support a rich diversity of invertebrates and finfish. The reserves are important breeding areas for several species of marine turtles and seabirds, which use the undisturbed sandy beaches for nesting. Humpback whales migrate through the reserves and dugongs occur in the shallow warm waters (DEC, 2007b).
Ningaloo Marine Park and Muiron Islands Marine Management Area (jointly managed)	-	-	✓	Sanctuary, Recreation, General Use and Special Purpose Zones	The Ningaloo Marine Park and Muiron Islands Marine Management Area are located off the North-west Cape of WA, ~1200 km north of Perth, and cover areas of ~2633 km² and 286 km², respectively.	Ningaloo Reef is the largest fringing coral reef in Australia. Temperate and tropical currents converge in the Ningaloo region resulting in highly diverse marine life including spectacular coral reefs, abundant fishes and species with special conservation significance such as turtles, whale sharks, dugongs, whales and dolphins. The region has diverse marine communities including mangroves, algae and filter-feeding communities and has high water quality. These values contribute to the Ningaloo Marine Park being regarded as the State's premier marine conservation icon. The Muiron Islands Marine Management Area is also important, containing a very diverse marine environment, with coral reefs, filter-feeding communities and macroalgal beds. In addition, the Islands are important seabird and green turtle nesting areas. (CALM, 2005a).

Protected Area	Woodside Activity Area			IUCN Protected Area Category*		
	Browse	NWS/S	NW Cape	or Relevant Park Zone	Description	Conservation Values
Shark Bay Marine Park and Hamelin Pool Marine Nature Reserve (jointly managed)	-	-	✓	Sanctuary, Recreation, General Use and Special Purpose Zones	The Shark Bay Marine Park and Hamelin Pool Marine Nature Reserves are located 400 km north of Geraldton, covering areas of ~7487 km² and 1270 km², respectively.	Seagrass covers over 4000 km² of the Shark Bay Marine Park, with 12 different species making it one of the most diverse seagrass assemblages in the world. Dugongs regularly use this habitat, with the bay containing one of the largest dugong populations in the world. Humpback whales also use the bay as a staging post in their migration along the coast. Green and loggerhead turtles occur in the bay with Dirk Hartog Island providing the most important nesting site for loggerheads in Western Australia. Hamelin Pool contains the most diverse and abundant examples of stromatolites found in the world. These are living representatives of stromatolites that existed some 3500 million years ago (CALM, 1996).

*Conservation objectives for IUCN categories include:

la: Strict Nature Reserve

Ib: Wilderness Area

II: national Park

III: Natural Monument or Feature

IV: Habitat/Species Management Area

V: Protected Landscape

VI: Protected area with sustainable use of natural resources – allow human use but prohibits large scale development.

IUCN categories for the marine park are provided and, in brackets, the IUCN categories for specific zones within each Marine Park as assigned under the North-west Marine Parks Network Management Plan 2018 (DNP, 2018a)

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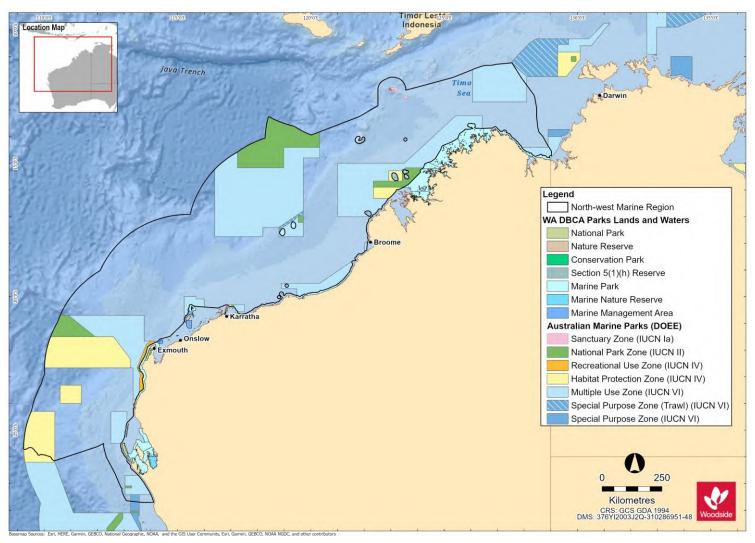


Figure 10-1 Commonwealth and State Marine Protected Areas for the NWMR

10.10 Summary of Protected Areas within the SWMR

Table 10-2 Protected Areas within the SWMR

Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values				
	World Heritage Properties						
N/A							
	National Heritage Places - Natural						
N/A							
	Commonwealth Heritage Places - Natural						
N/A							
	Wetlands of International Importance (Ramsar)						
Beecher Point Wetlands	Ramsar	Beecher Point Wetlands is a system of about sixty small wetlands located near Rockingham in southwest WA, covering an area of around 7 km². The site was listed under the Ramsar Convention in 2001.	The wetlands support sedgelands, herblands, grasslands, open-shrublands and low open-forests. The sedgelands that occur within the linear wetland depressions of the Ramsar site are a nationally listed TEC. At least four species of amphibians and twenty-one (21) species of reptiles have been recorded on the site. The site also supports the southern brown bandicoot. The site meets criteria 1 and 2 of the Ramsar Convention.				
Forrestdale and Thomsons Lakes	Ramsar	Forrestdale Lake is located in the City of Armadale and Thomsons Lake is located in the City of Cockburn both of which lie within the southern Perth metropolitan area, in Western Australia. The site was listed under the Ramsar Convention in 1990.	The lakes are surrounded by medium density urban development and some agricultural land. The sediments of Thomsons Lake are between 30,000 and 40,000 years old, which are the oldest lake sediments discovered in WA to date. These lakes are the best remaining examples of brackish, seasonal lakes with extensive fringing sedgeland, typical of the Swan Coastal Plain. The site meets criteria 1, 3, 5 and 6 of the Ramsar Convention.				
Peel-Yalgorup System	Ramsar	Peel-Yalgorup System, located adjacent to the City of Mandurah in	Peel-Yalgorup System Ramsar site is the most important area for waterbirds in south-western Australia. It supports a large number of waterbirds, and a				

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values	
		WA, is a large and diverse system of shallow estuaries, coastal saline lakes and freshwater marshes. The site was listed under the Ramsar Convention in 1990.	wide variety of waterbird species. It also supports a wide variety of invertebrates, and estuarine and marine fish. The site meets criteria 1, 3, 5 and 6 of the Ramsar Convention.	
Vasse-wonnerup system	Ramsar	Vasse-Wonnerup System Ramsar wetland is situated in the Perth Basin, south-western WA. The site was listed under the Ramsar Convention in 1990.	Vasse-Wonnerup System is an extensive, shallow, nutrient-enriched wetland system of highly varied salinities. Large areas of the wetland dry out in late summer. Vasse-Wonnerup System supports tens of thousands of resident and migrant waterbirds of a wide variety of species. More than 80 species of waterbird have been recorded in the System such as red-necked avocets and blackwinged stilts, wood sandpiper, sharp-tailed sandpiper, long-toed stint, curlew sandpiper and common greenshank. Thirteen waterbird species are also known to breed at the Ramsar site, including the largest regular breeding colony of black swans in south-western Australia. The site meets criteria 5 and 6 of the Ramsar Convention.	
		Wetlands of National Importa	nnce (DAWE, 2019)	
Rottnest Island Lakes		The Rottnest Island Lakes site is the cluster of 18 lakes and swamps on the north-east part of Rottnest Island.	An outstanding example of a series of lakes/swamps of varied depth and salinity located on an offshore island; the only island among 200 plus in WA exceeding 10 ha in area, that has a salt-lake complex; the only known example of seasonally meromictic lakes in Australia. The area meets criteria 1, 2, 3 and 6 for inclusion on the Directory of Important Wetlands in Australia.	
		Australian Marine Parks	(DNP, 2018b)	
Abrolhos Marine Park	II, IV, VI	The Abrolhos Marine Park is located within both the NWMR and SWMR. Refer Table 10-1 for description and conservation values.		
Bremer Marine Park	II, VI	Bremer Marine Park covers an area of 4472 km² and is located approximately half-way between Albany and Esperance, offshore from the Fitzgerald River National Park, extending from the WA State waters boundary.	Bremer Marine Park is significant because it contains habitats, species and ecological communities associated with two bioregions: • Southern Province • South-west Shelf Province. It includes two KEFs: Albany Canyon group and adjacent shelf break; and Ancient coastline at 90-120 m depth.	

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
			The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions, and white sharks, a migratory pathway for humpback whales, and a significant calving area for southern right whales. The AMP includes canyons—important aggregation areas for killer whales.
Eastern Recherche Marine Park	II, VI	Eastern Recherche Marine Park covers an area of 20,575 km² and is located ~135 km east of Esperance, adjacent to the Recherche Archipelago, close to the WA Cape Arid National Park.	Eastern Recherche Marine Park is significant because it contains habitats, species and ecological communities associated with three bioregions: • South-west Shelf Province • Southern Province • Great Australian Bight Shelf Transition. It includes three KEFs: Mesoscale eddies; Ancient coastline at 90-120 m depth; and Commonwealth marine environment surrounding the Recherche Archipelago. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions and white sharks, and a calving buffer area for southern right whales.
Geographe Marine Park	II, IV, VI	Geographe Marine Park covers an area of 977 km² and is located in Geographe Bay, ~8 km west of Bunbury and 8 km north of Busselton, adjacent to the WA Ngari Capes Marine Park.	Geographe Marine Park is significant because it contains habitats, species and ecological communities associated with the South-west Shelf Province bioregion. It includes two KEFs: Commonwealth marine environment within and adjacent to Geographe Bay; and Western rock lobster. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, a migratory pathway for humpback and pygmy blue whales, and a calving buffer area for southern right whales.
Great Australian Bight Marine Park	II, VI	Great Australian Bight Marine Park covers an area of 45,822 km² and is located ~12 km south-east of Eucla and 174 km west of Ceduna, adjacent to the SA Far West Coast and Nuyts Archipelago Marine Parks.	Great Australian Bight Marine Park is significant because it contains habitats, species and ecological communities associated with two bioregions: • Great Australian Bight Shelf Transition • Southern Province. It includes three KEFs: Ancient coastline at 90-120 m depth; Benthic invertebrate communities of the eastern Great Australian Bight; and Small pelagic fish of the South-west Marine Region. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions, white sharks and

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
			pygmy blue and sperm whales, and a calving area, migratory pathway and large aggregation area for southern right whales.
Jurien Marine Park	II, VI	Jurien Marine Park covers an area of 1851 km² and is located ~148 km north of Perth and 155 km south of Geraldton, adjacent to the WA Jurien Bay Marine Park.	Jurien Marine Park is significant because it includes habitats, species and ecological communities associated with two bioregions: • South-west Shelf Transition • Central Western Province. It includes three KEFs: Ancient coastline at 90-120 m depth; Demersal slope and associated fish communities of the Central Western Province; and Western rock lobster The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions and white sharks, and a migratory pathway for humpback and pygmy blue whales.
Perth Canyon Marine Park	II, IV, VI	Perth Canyon Marine Park covers an area of 7409 km² and is located ~52 km west of Perth and ~19 km west of Rottnest Island.	Perth Canyon Marine Park is significant because it includes habitats, species and ecological communities associated with four bioregions: • Central Western Province • South-west Shelf Province • Southwest Transition • South-west Shelf Transition. It includes four KEFs: Perth Canyon and adjacent shelf break, and other west-coast canyons; Demersal slope and associated fish communities of the Central Western Province; Western rock lobster; and Mesoscale eddies. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Antarctic blue, pygmy blue and sperm whales, a migratory pathway for humpback, Antarctic blue and pygmy blue whales, and a calving buffer area for southern right whales.
South-west Corner Marine Park	II, IV, VI	South-west Corner Marine Park covers an area of 271,833 km² and is located adjacent to the WA Ngari Capes Marine Park. It covers an extensive offshore area that is closest to WA State waters ~48 km west of Esperance, 73 km west of Albany and 68 km west of Bunbury.	South-west Corner Marine Park is significant because it contains habitats, species and ecological communities associated with three bioregions: • Southern Province • South-west Transition • South-west Shelf Province. It includes six KEFs: Albany Canyon group and adjacent shelf break; Cape Mentelle upwelling; Diamantina Fracture Zone; Naturaliste Plateau; Western rock lobster; and Ancient coastline at 90 m-120 m depth.

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
			The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions, white sharks and sperm whales, a migratory pathway for Antarctic blue, pygmy blue and humpback whales, and a calving buffer area for southern right whales.
Twilight Marine Park	II, VI	Twilight Marine Park covers an area of 4641 km² and is located ~245 km south-west of Eucla and 373 km north-east of Esperance, adjacent to the WA State waters boundary.	Twilight Marine Park is significant because it contains habitats, species and ecological communities associated with the Great Australian Bight Shelf Transition bioregion. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds, Australian sea lions and white sharks, and a calving buffer area for southern right whales.
Two Rocks Marine Park	II, VI	Two Rocks Marine Park covers an area of 882 km² and is located ~25 km north-west of Perth, to the north-west of the WA Marmion Marine Park.	Two Rocks Marine Park is significant because it includes habitats, species and ecological communities associated with the South-west Shelf Transition bioregion. It includes three KEFs: Commonwealth marine environment within and adjacent to the west-coast inshore lagoons; Western rock lobster; and Ancient coastline at 90-120 m depth. The AMP supports a range of species including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat for seabirds and Australian sea lions, a migratory pathway for humpback and pygmy blue whales, and a calving buffer area for southern right whales.
		State Marine Parks an	d Reserves
Jurien Bay Marine Park	Sanctuary, Special Purpose and General Use Zones.	The Jurien Bay Marine Park is located on the central west coast of WA ~200 km north of Perth and covers an area of 824 km².	An extensive limestone reef system parallel to the shore has created a huge shallow lagoon that provides perfect habitat for Australian sea lions, dolphins and a myriad of juvenile fish. Extensive seagrass meadows inside the reef shelter many marine animals such as western rock lobsters, octopus and cuttlefish that make up the diet of young sea lions. The marine park also surrounds dozens of ecologically important islands that contain rare and endangered animals found nowhere else in the world (CALM, 2005b).
Marmion Marine Park	Sanctuary, Recreation and Special Use Zones.	The Marmion Marine Park lies within State waters between Trigg Island and Burns Beach and encompasses a coastal area of ~95 km². Marmion	The marine park has a number of sanctuary zones including Little Island, The Lumps and the Boyinaboat Reef protecting a variety of habitats from limestone reefs, seagrass beds and clear shallow lagoons that support a diversity of marine life. In addition, to a general use zone and the Waterman Recreation Area. The marine park contains important habitat for the endemic Australian

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
		Marine Park was the State's first marine park, declared in 1987.	sea lion, an array of seabird species migratory whales are regular visitors (CALM, 1992; DPAW, 2016d).
Swan Estuary Marine Park	Special Purpose and Nature Reserve Zones.	Three biologically important areas of Perth's Swan River make up the Swan Estuary Marine Park, including Alfred Cove, Pelican Point and Crawley. These three sites cover a total area of 3.4 km ² .	The sand flats, mud flats and beaches at the three locations of the Swan Estuary Marine Park provide the only remaining significant feeding and resting areas in the Swan Estuary, for trans-equatorial migratory wading and waterbirds. The Park and adjacent reserves also provide habitat for a diverse assemblage of aquatic and terrestrial flora and fauna (CALM, 1999).
Shoalwater Islands Marine Park	Sanctuary, Special Purpose and General Use Zones.	The Shoalwater Islands Maine Park is located adjacent to Rockingham on the south-west coast of WA, ~50 km south of Perth and covers an area of ~66 km².	The Shoalwater Islands Marine Park consists of a complex seabed and coastal topography consisting of islands, limestone ridges and reef platforms, protected inshore areas and deeper basins, sandbars and beaches, and is home to five species of cetacean and 14 species of sea and shore bird. The waters of the marine park are also used to access feeding grounds for the little penguin (<i>Eudyptula minor</i>) colony on Penguin Island, which is close to the northernmost limit of the species' range and is the largest known breeding colony in Western Australia (DEC, 2007c).
Ngari Capes Marine Park	Sanctuary, Special Purpose and Recreation Zones.	The Ngari Capes Marine Park is located off the south-west coast of WA, ~250 km south of Perth, covering ~1238 km².	The Ngari Capes Marine Park consists of a complex arrangement of sandy bays, high energy limestone and granite reefs bordered by headlands and cliffs and two weathered capes. Coral communities consist of both tropical and temperate species. Cetaceans and pinnipeds are resident in and/or transient through the marine park as well as a diverse range of seabirds and shorebirds (DEC, 2013).
Walpole and Nornalup Inlets Marine Park	Recreation Zone.	The Walpole and Nornalup Inlets Marine Park is located adjacent to the towns of Walpole and Nornalup on the south coast of WA, ~120 km west of Albany, and covers ~14 km².	The Walpole and Nornalup Inlets Marine Park consists of a geologically complex lagoonal estuarine system comprising three significant rivers and two connected inlets that are permanently open to the ocean. Approximately 40 marine and estuarine finfish species commonly inhabit the inlet system, as well as a variety of shark and ray species and numerous seabirds and shorebirds. The sandy beaches and shoreline vegetation of the inlet system are of high ecological and social importance to the marine park (DEC, 2009).

^{*}Conservation objectives for IUCN categories include:

Ia: Strict Nature Reserve

Ib: Wilderness Area

II: national Park

III: Natural Monument or Feature

IV: Habitat/Species Management Area

V: Protected Landscape

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cription of the Existing Environment	
rotected area with sustainable use of natural resources – allow human use but prohibits large scale development.	
categories for the marine park are provided and, in brackets, the IUCN categories for specific zones within each Marine Park as assigned under the South-west Marine Parks Network (IDNP, 2018b)	work

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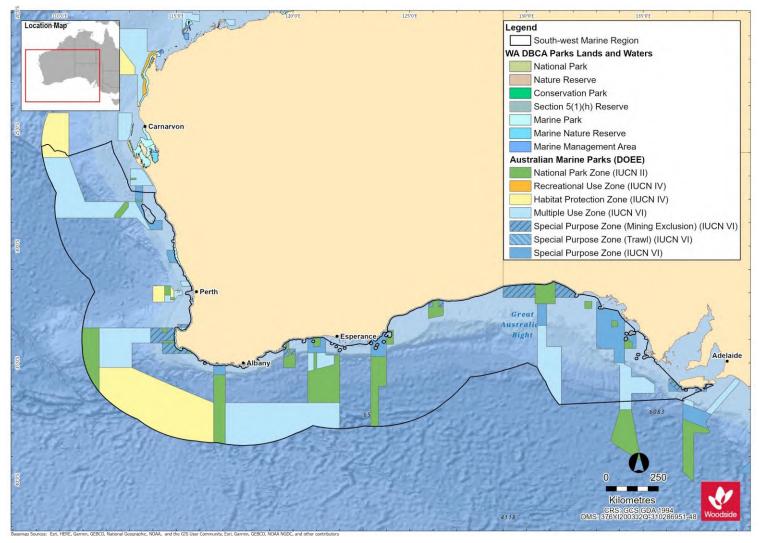


Figure 10-2. Commonwealth and State Marine Protected Areas for the SWMR

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10.11 Summary of Protected Areas within the NMR

Table 10-3 Protected Areas within the NMR

Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
		World Heritage Pr	operties
Kakadu National Park		Kakadu National Park is a living landscape with exceptional natural and cultural values. It is the largest National Park in Australia and preserves the greatest variety of ecosystems on the Australian continent including extensive areas of floodplains, mangroves, tidal mudflats, coastal areas and monsoon forests. The park was inscribed the World Heritage list in three stages over 11 years. It is located in tropical north Australia covering a total area of 19,804 square kilometres.	The conservation values reflect the WHA Criterion: (i), (vi), (vii) and (ix): Natural features relate to Criterion (vii) – the remarkable contrast between the internationally recognised Ramsar-listed wetlands and the spectacular rocky escarpment and its outliers and Criterion (ix) – four major river systems of tropical Australia and floodplains that are dynamic environments, shaped by changing sea levels and big floods every wet season. These floodplains illustrate the ecological and geomorphological effects that have accompanied Holocene climate change and sea level rise. Kakadu National Park contains important and significant habitats supporting a diverse range of flora and fauna.
		National Heritage Plac	ees - Natural
Kakadu National Park		Refer to World Heritage property description above.	Refer to World Heritage property conservation values above
		Commonwealth Heritage	Places - Natural
N/A			
		Wetlands of International Im	portance (Ramsar)
Kakadu National Park		Australian Ramsar site number 2. The stage 1 and 2 Ramsar sites, established in 1980, 1985 and 1989, respectfully were combined into a single Ramsar site in 2010.	The Kakadu National Park Ramsar site straddles the western edge of the Arnhem Land Plateau encompassing a range of landforms and extensive floodplains. It is a mosaic of contiguous wetlands comprising the catchments of two large river systems, the East and South Alligator rivers and encompasses extensive tidal mudflat areas. It is an internationally important site for migratory shorebirds as part of the EAAF.
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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
Cobourg Peninsula		Australian Ramsar site number 1 established in 1974. This Ramsar site includes freshwater and extensive intertidal areas but excludes subtidal areas. It is in a remote location and there has been minimal human impact on the site.	The wetlands encompassed in the Ramsar site are some of the better protected and near-natural wetlands in the bioregion and there is a diverse array of wetland in a confined area. The site supports important turtle nesting habitat and habitat for coastal dolphin species and is an internationally significant migratory shorebird habitat as part of the EAAF and an important location for seabird breeding colonies.
		Wetlands of National Importa	ance (DAWE, 2019)
Southern Gulf Aggregation		The site is a complex continuous wetland aggregation in the Gulf of Carpentaria, covering an area of ~5460 km² located 58 km east of Burketown, Queensland.	The Southern Gulf Aggregation is the largest continuous estuarine wetland aggregation of its type in northern Australia. It is one of the three most important areas for shorebirds in Australia. The area meets criteria 1, 2, 3, 4, 5 and 6 for inclusion on the Directory of Important Wetlands in Australia.
		Australian Marine Parks	(DNP, 2018c)
Arafura Marine Park	VI	Arafura Marine Park covers an area of 22,924 km² is located ~256 km north-east of Darwin and 8 km offshore of Croker Island, NT. It extends from NT waters to the limit of Australia's EEZ.	The AMP is significant because it contains habitats, species and ecological communities associated with two bioregions: Northern Shelf Province Timor Transition. It includes one KEF: Tributary canyons of the Arafura Depression. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include internesting habitat for marine turtles and important foraging and breeding habitat for seabirds.
Arnhem Marine Park	VI	Arnhem Marine Park covers an area of 7125 km² and is located ~100 km south-east of Croker Island and 60 km south-east of the Arafura Marine Park. It extends from NT waters surrounding the Goulburn Islands, to the waters north of Maningrida.	Arnhem Marine Park is significant because it contains habitats, species and ecological communities associated with the Northern Shelf Province bioregion. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include foraging habitat and a migratory pathway for marine turtles and seabirds.
Gulf of Carpentaria Marine Park	II, VI	Gulf of Carpentaria Marine Park covers an area of 23,771 km² and is located ~90 km north-west of Karumba, Queensland and is adjacent to the Wellesley Islands in	Gulf of Carpentaria Marine Park is significant because it contains habitats, species and ecological communities associated with the Northern Shelf Province bioregion.

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
		the south of the Gulf of Carpentaria basin.	It includes four KEFs: Gulf of Carpentaria basin; Gulf of Carpentaria coastal zone; Plateaux and saddle north-west of the Wellesley Islands; and Submerged coral reefs of the Gulf of Carpentaria. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and foraging areas for seabirds and internesting and foraging areas for turtles.
Joseph Bonaparte Gulf Marine Park	VI	The Joseph Bonaparte Gulf Marine Park is located within both the NWMR and NMR. Refer Table 10-1 for description and conservation values.	
Limmen Marine Park	IV	Limmen Marine Park covers an area of 1399 km² and is located ~315 km south-west of Nhulunbuy, NT, in the south-west of the Gulf of Carpentaria. It extends from NT waters, between the Sir Edward Pellew Group of Islands and Maria Island in the Limmen Bight, adjacent to the NT Limmen Bight Marine Park.	Limmen Marine Park is significant because it contains habitats, species and ecological communities associated with the Northern Shelf bioregion. It includes one KEF: Gulf of Carpentaria coastal zone. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include internesting and foraging habitat for marine turtles.
Oceanic Shoals Marine Park	II, IV, VI	The Oceanic Shoals Marine Park is located within both the NWMR and NMR. Refer Table 10-1 for description and conservation values.	
Wessel Marine Park	IV, VI	Wessel Marine Park covers an area of 5908 km² and is located ~22 km east of Nhulunbuy, NT. It extends from NT waters adjacent to the tip of the Wessel Islands to NT waters adjacent to Cape Arnhem.	Wessel Marine Park is significant because it contains habitats, species and ecological communities associated with the Northern Shelf bioregion. It includes one KEF: Gulf of Carpentaria basin. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding habitat for seabirds and internesting and foraging habitat for marine turtles.
West Cape York Marine Park	II, IV, VI	West Cape York Marine Park covers an area of 16,012 km² and is located adjacent to the northern end	West Cape York Marine Park is significant because it contains species and ecological communities associated with two bioregions: Northeast Shelf Transition

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Protected Area	IUCN Protected Area Category* or Relevant Park Zone	Description	Conservation Values
		of Cape York Peninsula ~25 km south-west of Thursday Island and 40 km north-west of Weipa, Queensland.	Northern Shelf Province. It includes two KEFs: Gulf of Carpentaria basin; and Gulf of Carpentaria coastal zone. The AMP supports a range of species, including species listed as threatened, migratory, marine or cetacean under the EPBC Act. BIAs within the AMP include breeding and foraging habitat for seabirds, internesting and foraging habitat for marine turtles and dugong, and foraging, breeding and calving habitat for dolphins.
		Territory Marine Parks a	and Reserves
Cobourg Marine Park	II, IV, VI	Cobourg Marine Park covers an area of 2,290 km² and is located in the waters surrounding the Cobourg Peninsula ~220 km north-east of Darwin. The Marine Park is part of the larger Garig Gunak Barlu National Park. Garig Gunak Barlu National Park includes both the Marine Park and the Cobourg Sanctuary.	Cobourg Marine Park is located in the Cobourg and Van Diemen Gulf marine bioregions with the northern portion of the Park covered by the Cobourg marine bioregion and the southern portion covered by the Van Diemen Gulf marine bioregion. The Marine Park is characterised by a number of deeply incised bays and estuaries on its northern shores. These bays are ancient river valleys that were drowned during periods of sea level rise and provide a varied environment and habitat that is quite distinct from the open water areas of the Park. The areas of the Park that have been studied and where extensive collections have been made indicates that the Park supports rich and diverse marine life including live coral reefs, seagrass, diverse reef and pelagic fish populations, marine turtles and dugong.

*Conservation objectives for IUCN categories include:

la: Strict Nature Reserve

Ib: Wilderness Area

II: National Park

III: Natural Monument or Feature

IV: Habitat/Species Management Area

V: Protected Landscape

VI: Protected area with sustainable use of natural resources – allow human use but prohibits large scale development.

IUCN categories for the marine park are provided and, in brackets, the IUCN categories for specific zones within each Marine Park as assigned under the North Marine Parks Network Management Plan 2018 (DNP, 2018c)

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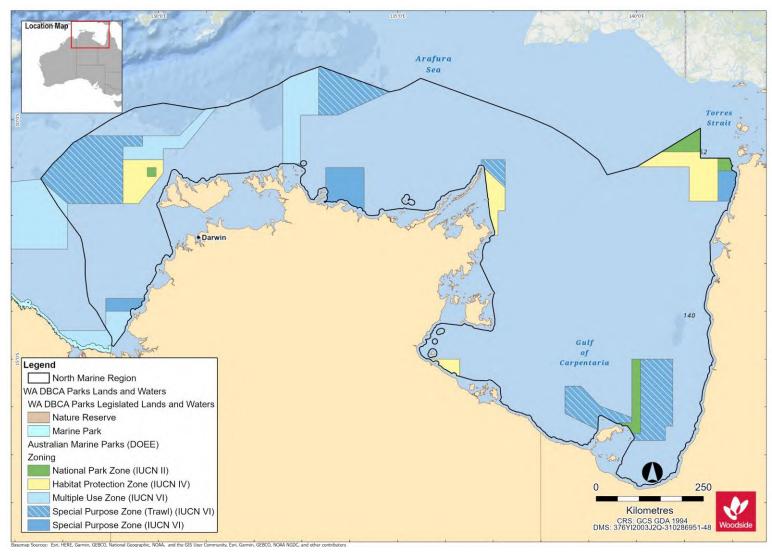


Figure 10-3. Commonwealth and State Marine Protected Areas within the NMR

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11. SOCIO-ECONOMIC AND CULTURAL ENVIRONMENT

This section summarises the information relating to the socio-economic and cultural environment of the regions offshore Western Australia, with a focus on the NWMR and to a lesser extent the SWMR and NWR.

The cultural environment includes Indigenous and European heritage values, including underwater values such as historic shipwrecks. Socio-economic values include commercial and traditional fishing, tourism and recreation, shipping, oil and gas activities and defence activities.

11.1 Cultural Heritage

11.1.1 Indigenous Sites of Significance

Murujuga (the Burrup Peninsula) has a very high density of significant Indigenous heritage sites and places with tangible and intangible heritage values. The area has one of the largest, densest, and most diverse collections of rock art in the world. It is estimated that the peninsula and surrounding islands contain over a million petroglyphs (rock engravings) covering a broad range of styles and subjects. The landscape also contains quarries, middens, fish traps, rock shelters, ceremonial sites, artefact scatters, grinding patches and stone arrangements that evidence tens of thousands of years of human occupation. These places are linked to Aboriginal cosmology, Dreaming stories and songs through the stories, knowledge and customs that are still held by traditional custodians.

In 2007 the Dampier Archipelago (including the Burrup Peninsula) was included on the National Heritage List due to outstanding heritage values relating to Australia's cultural history contained in the large number, density, diversity, distribution and fine execution of rock art. Within the National Heritage Place, the Murujuga National Park covers 4913 ha and is co-managed by the Murujuga Aboriginal Corporation and the Department of Biodiversity, Conservation and Attractions. The Murujuga Cultural Landscape was also added to Australia's Tentative World Heritage List in 2020, with full World Heritage Listing anticipated in 2024.

Woodside also recognises the potential for heritage to survive in submerged landscapes. Sea-level rises since the last ice age mean that areas now under the sea were once exposed, that many of today's islands would have been connected to the mainland, and that Aboriginal people are highly likely to have inhabited these places. Woodside works with traditional custodians, academics and heritage professionals to identify tangible and intangible heritage values in the submerged landscape to avoid disturbing heritage where possible and to minimise impacts where heritage cannot be avoided.

It is an offence to excavate, destroy, damage, conceal or alter Indigenous heritage onshore or in state waters under section 17 of the *Aboriginal Heritage Act 1972 (WA) (AHA)* without ministerial authorisation. Where there is a risk of injury or desecration to a significant Aboriginal area, even where permitted under the AHA, any Aboriginal person may apply to the federal Environment Minister for a declaration under sections 9 or 10 of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)* for the protection and preservation of that area.

The Department of Planning, Lands and Heritage maintains a register of registered sites and heritage places including middens, burial, ceremonial [sites], artefacts, rock shelters, mythological [sites] and engraving sites. There are over 1600 registered sites on Murujuga and the Dampier Archipelago with around 1100 other heritage places. This register is not comprehensive and will be complemented by heritage surveys where necessary. Protection of National and World Heritage values is also legislated through various provisions of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Murujuga National Park is managed under the *Conservation and Land Management Act 1984 (WA)*.

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11.1.2 European Sites of Significance

European sites of significance and heritage value are found along adjacent foreshores of the SWMR, NWMR and NWR. Heritage values are protected in Western Australia under the *Heritage Act 2018*.

11.1.3 Underwater Cultural Heritage

Places of historic cultural significance are protected under Commonwealth, State and local regimes. Places inscribed on the National or World Heritage list are protected through various provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). Historic places may also be protected under the *Heritage Act 2018* (WA); under section 129 the prohibited alteration, demolition, damage, despoilment or removal of objects from a registered place may result in a fine of A\$1 million. Protection of heritage by local government typically emanates from local planning schemes produced under Part 5 of the *Planning and Development Act 2005* (WA).

The remains of vessels and aircraft in Commonwealth waters, along with any associated article, are automatically protected under the *Underwater Cultural Heritage Act 2018* (Cth) after 75 years. Remains and relics of any ship lost, wrecked or abandoned in Western Australian waters before 1900 are protected by the *Maritime Archaeology Act 1973* (WA).

The Australian National Shipwreck Database and the WA Maritime Museum Shipwreck Database list these protected wrecks.

11.1.4 National and Commonwealth Listed Heritage Places

Australia's National Heritage Sites are those of outstanding natural, historic and/or Indigenous significance to Australia. National Heritage places classed as natural are discussed in **Section 10.3**. Historic and/or Indigenous National Heritage Listed Places of the NWMR include:

- Dampier Archipelago (including Burrup Peninsula)
- Dirk Hartog Landing Site/Cape Inscription
- HMAS Sydney II and the HSK Kormoran Shipwreck Sites
- Batavia Shipwreck Site and Survivor Camps Area 1629 Houtman Abrolhos

Commonwealth Heritage Places are a collection of sites recognised for their Indigenous, historical and/or natural values, which are owned or controlled by the Australian Government. A number of these sites are owned or controlled by the Department of Defence, as well as Government agencies relating to maritime safety, customs and communication. Commonwealth Heritage places classed as natural are discussed in **Section 10.3**. Listed Heritage Places in the NWMR include:

- Mermaid Reef Rowley Shoals (refer Section 10.3)
- Ashmore Reef National Nature Reserve (refer Section 10.3)
- Scott Reef and Surrounds Commonwealth Area (refer **Section 10.3**)
- Ningaloo Marine Area (refer Section 10.3)

World Heritage Properties are those sites that hold universal value which transcends any value they may be held by any one nation. These sites and their qualities are detailed in the Convention concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention), to which Australia is a founding member. The Protected Matters Search Report (**Appendix A**) lists two natural World Heritage Properties in the NWMR (refer **Section 10.2**). There are no cultural heritage listings located within the NWMR.

Summary tables of heritage places for NWMR, SWMR and NMR are presented in **Table 11-1,Table 11-2** and **Table 11-3**.

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11.2 Summary of Heritage Places within the NWMR

Table 11-1 Heritage Places (Indigenous and Historic) within the NWMR

	Woodside Activity Area						
Heritage Places	Browse	NWS/S	NW Cape	Class	Description	Conservation Values	
				Natio	onal Heritage Properties		
Dampier Archipelago (including Burrup Peninsula)	-	✓	-	Indigenous	The Dampier Archipelago (including the Burrup Peninsula) contains one of the densest concentrations of rock engravings in Australia with some sites containing thousands or tens of thousands of images.	The rock engravings comprise images of avian, marine and terrestrial fauna, schematised human figures, figures with mixed human and animal characteristics and geometric designs. At a national level it has an exceptionally diverse and dynamic range of schematised human figures some of which are arranged in complex scenes. The fine execution and dynamic nature of the engravings, particularly some of the composite panels, exhibit a degree of creativity that is unusual in Australian rock engravings.	
Dirk Hartog Landing Site 1616 – Cape Inscription Area	-	-	~	Historic	Cape Inscription is the site of the oldest known landings of Europeans on the WA coastline.	The Cape Inscription area displays uncommon aspects of Australia's cultural history because of the cumulative effect its association with these explorers and surveyors had on growing knowledge of the great southern continent in Europe. The association of the site with these early navigators stimulated the development of the European view of the great southern continent at a time when they began to look at the world with a modern scientific outlook.	
	Commonwealth Heritage Properties						
N/A							

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11.3 Summary of Heritage Places within the NMR

Table 11-2 Heritage Places (Indigenous and Historic) within the NMR

Heritage Places	Class	Description	Conservation Values			
		National Heritage Properties				
None						
Commonwealth Heritage Properties						
None						

11.4 Summary of Heritage Places within the SWMR

Table 11-3 Heritage Places (Indigenous and Historic) within the SWMR

Heritage Places	Class	Description	Conservation Values
		National Heritage Properties	
Cheetup Rock Shelter	Indigenous	Cheetup meaning "place of the birds" is the name of a spacious rock shelter located in Cape Le Grand National Park, about 55 km east of Esperance in WA. Aboriginal people associated with the place identify themselves as Nyungar/Noongar, Ngadju (shortened from Ngadjunmaia) or Mirning.	Cheetup rock shelter provides outstanding evidence for the antiquity of processing and use of cycad seeds by Aboriginal people. The seeds of the cycad are extremely toxic and can cause speedy death if eaten fresh without proper preparation to remove the toxins. The presence of <i>Macrozamia riedlei</i> seeds in a pit lined with Xanthorrhoea (grass tree) leaf bases indicates that the Aboriginal people in the Esperance region had the knowledge to remove the toxins of this important source of carbohydrate and protein at least 13,200 years ago.

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Heritage Places	Class	Description	Conservation Values
Batavia Shipwreck Site and Survivor Camps Area 1629 – Houtman Abrolhos	Historic	The Batavia and its associated sites hold an important place in the discovery and delineation of the WA coastline. The wreck of the Batavia, and other Dutch ships like her, convinced the VOC (Dutch East India Company) of the necessity of more accurate charts of the coastline and resulted in the commissioning of Vlamingh's 1696 voyage.	Because of its relatively undisturbed nature the archaeological investigation of the wreck itself has revealed a range of objects of considerable value as well as to artefact specialists and historians.
HMAS Sydney II and HSK Kormoran Shipwreck Sites	Historic	The naval battle fought between the Australian warship HMAS Sydney II and the German commerce raider HSK Kormoran off the WA coast during World War II was a defining event in Australia's cultural history. HMAS Sydney II was Australia's most famous warship of the time and this battle has forever linked the stories of these warships to each other. The loss of HMAS Sydney II along with its entire crew of 645 following the battle with HSK Kormoran, remains as Australia's worst naval disaster.	The shipwreck sites of HMAS Sydney II and HSK Kormoran have outstanding heritage value to the nation because of their importance in a defining event in Australia's cultural history and for their part in development of the process of the defence of Australia.
		Commonwealth Heritage Propertie	es
Cliff Point Historic Sites	Historic	Cliff Head is a limestone bluff on the east coast of Garden Island. Evidence of occupation has been reported from the beach just north of the head, the immediate hinterland, the ridge above and on the south face of the ridge.	The Cliff Point Historic Site, individually significant within the area of Garden Island is important as the first site inhabited by Governor Stirling's party in 1829 when founding the colony of WA, and as WA's first official non-convict settlement. The site was occupied in the first instance by Captain Charles Fremantle before the arrival of Captain Stirling. The party occupied the site for two months before a move was made to the Swan River settlement on the mainland.
HMAS Sydney II and HSK Kormoran Shipwreck Sites	Historic	As above	As above
J Gun Battery	Historic	J Battery comprised two 155 mm long range guns, the other similar battery being at Cape Peron on the mainland at the entrance to Cockburn Sound. Located in the dune systems at the north western	J Gun Battery (1942) is individually significant within the area of Garden Island (Register No. 019544) and is historically important as the first gun battery constructed on Garden Island and as one of two long range gun batteries which played a

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Heritage Places	Class	Description	Conservation Values		
		corner of Garden Island elements of the J Battery complex are now covered in part by sand.	strategic role in the coastal defences of Cockburn Sound and Fremantle following the entry of Japan into the Second World War (1939-45).		

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11.5 Fisheries - Commercial

11.5.1 Commonwealth and State Fisheries

The diverse range of habitats and species offshore WA has allowed for various fisheries to develop and operate throughout the region.

The Australian Fisheries Management Authority (AFMA) manages fisheries on behalf of the Commonwealth Government and is bound by objectives under the Commonwealth *Fisheries Management Act 1991*.

WA State commercial fisheries are managed by the WA Department of Primary Industries and Regional Development (WA DPIRD) under the WA *Fish Resources Management Act 1994* (FRMA), Fisheries Resources Management Regulations 1995, relevant gazetted notices and licence conditions, and applicable Fishery Management Plans.

Commonwealth and State managed fisheries that operate within the NWMR and in areas beyond this region are summarised in the **Table 11-4**.

Table 11-4 Commonwealth and State managed fisheries

	Wo	odside Are	Activity						
Fishery	Browse	S/SMN	NW Cape	Description					
Commonwealth M	anaged	Fisher	ies						
Southern Bluefin Tuna Fishery	✓	✓	√	Management area		The Southern Bluefin Tuna Fishery (SBTF) covers the entire EEZ around Australia, out to 200 nm from the coast. They do not fish in the Woodside activity area.			
				Species targeted		Fishing methods	Fishing depth		
				Southern bluefin tuna maccoyii)			Southern bluefin tuna is a pelagic species which can be found to depths of 500 m (AFMA, 2021a)		
				Fishing effort	Most of the Australian fishing effort is by purse-seine vessels in the Great Australian Bight and waters south Australia during summer months, and by longline off the New South Wales coastline during wint months (Patterson <i>et al.</i> , 2020). SBTF is a fishery that is shared amongst many countries. Australia currently has a 35% share of the toglobal allowable catch, and while wild capture fishing in Australia to sell directly to market can occur anywhere throughout the SBTF's range, currently the vast majority of that quota is value-added throug ranching (on-growing the wild captured fish for extra 5-6 months). Ranching requires significant infrastructure, a resident labour force, plus proximity to a fishery able to supply a large quantity of natu feed/sardines (40,000+ tonnes) (for example as available in Port Lincoln). North-west WA is critically important regardless of how the quota is fished because of the proximity to the single spawning ground this global roaming species. The stock remains classified as overfished.				
				Active licences/vessels	Seven purse seine vessels, 20 longline vessels (Patterson et al., 2020).				
Western Skipjack Tuna Fishery	✓	✓	√	Management area					

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	Wo	odside Are	Activity				
Fishery	Browse	NWS/S	NW Cape	Description			
				Species targeted		Fishing methods	Fishing depth
				Western skipjack tuna pelamis)	(Katsuwonus	Fishers use purse seine gear (about 98% of catch) and sometimes pole and line when fishing for skipjack tuna.	Western skipjack tuna is a pelagic species that can be found to depths of 260 m (AFMA, 2021b).
				Fishing effort:	The Skipjack Tuna Fishery (STF) has not been actively fished since the 2008-2009 fishing season (Patterson <i>et al.</i> , 2020). The management arrangements for this fishery will be reviewed if active boats reenter the fishery.		
				Active licences/vessels:	No active vessels	operating since 2009.	
Western Tuna and Billfish Fishery	√	√ √ √		Management area	The Western Tuna and Billfish Fishery (WTBF) extends to the Australian EEZ boundary in the Indian Ocean.		
				Species targeted		Fishing methods	Fishing depth
				Bigeye tuna (<i>Thunnus</i> Yellowfin tuna (<i>Thunnus</i> Swordfish (<i>Xiphias gla</i> Albacore (<i>Thunnus ala</i> Striped marlin (<i>Kajikia</i>	us albacares) adius) alonga)	Fishers mainly use pelagic longline fishing gear to catch the targeted species. Minor line (including handline, troll, rod and reel) can also be used.	Species have a broad depth distribution, with tuna occurring at 150 – 300 m, striped marlin at 150 m and swordfish at up to 600 m (BRS, 2007).
				Fishing effort:		es in Australia's EEZ and high seas of the In rated off south-west WA, with occasional act	
				Active licences/vessels:	Two pelagic longlin	ne vessels and two minor longline vessels (I	Patterson <i>et al.</i> , 2020).
Western Deepwater Trawl Fishery			✓	Management area		owater Trawl Fishery (WDTF) is located in d 200 m isobath to the edge of the Australian	

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	Wo	odside Are	Activity a						
Fishery	Browse	NWS/S	NW Cape	Description					
				Species targeted		Fishing methods	Fishing depth		
				More than 50 species, historically dominated by six commercial finfish species or species groups: Orange roughy (Hoplostethus atlanticus) Oreos (Oreosomatidae) Boarfish (Pentacerotidae) Eteline snapper (Lutjanidae: Etelinae) Apsiline snapper (Lutjanidae: Apsilinae) Sea bream (Lethrinidae)		Demersal trawl.	Water deeper than 200 m, stakeholder consultation has indicated that this may be to depths of 800 m.		
				Fishing effort:	Notably, total hours targeted ruby snap but relatively low s	ssels active in the fishery and total hours trawled have fluctuated from year to year. It is trawled were relatively high for a brief period during the early 2000s when fishers oper and deepwater bugs (Patterson <i>et al.</i> , 2020). Total fishing effort has been variable since then. Effort in 2018-2019 (492 trawl hours) was less than half that of 2017-2018 (Patterson <i>et al.</i> , 2020).			
				Active licences/vessels:	One active vessel	in 2018-2019 (Patterson et al., 2020).			
North-west Slope Trawl Fishery	√	√		Management area		ope Trawl Fishery (NWSTF) extends, from 1 e AFZ (200 nm from the coastline, which is t			
				Species targeted		Fishing methods	Fishing depth		
				Australian scampi (<i>Metanephrops</i> australiensis) and smaller quantities of velvet and Boschma's scampi (<i>M. velutinus</i> and <i>M. boschmai</i>) Mixed snappers have historically been an important component of the catch.		Demersal trawl.	Typically at depths of 350 to 600 m (Patterson <i>et al.</i> , 2017), however stakeholder consultation has indicated that this may be to depths of 800 m.		

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	Wo	odside Are	Activity a				
Fishery	Browse	NWS/S	NW Cape	Description			
				Fishing effort: The NWSTF commenced in 1985 and the number of active vessels peaked at 21 in the 1986-1987 season and declined through the 1990s before increasing to 10 vessels in 2000-2001 and 2002-2002 seasons. Four vessels operated in the 2017-2018 and 2018-2019 seasons (Patterson et. al. 2020). Fishing for scampi occurs over soft, muddy sediments or sandy habitats, using demersal trawl gear on the continental slope (Patterson et al., 2017). Active licences/vessels: Four vessels (Patterson et. al., 2020).			
State Managed Fish	eries						
Pilbara Fish Trawl (Interim) Managed Fishery		√		Management area	governed by Scheotrawl units are allocareas) (Newman e	dule 5 (prohibited to trawling). In addition to	Zone 2 (which comprises six management
				Species targeted		Fishing methods	Fishing depth
				The Pilbara Fish Trawl (Interim) Managed Fishery (PFTIMF) targets more than 50 scalefish species. The five main demersal scalefish species landed by the fisheries in the Pilbara region are blue-spotted emperor, crimson snapper, rosy threadfin bream, red emperor and goldband snapper in 2018 (Newman et al., 2020a).		Demersal trawl.	The Pilbara Fish Trawl Fishery lands the largest component of the catch and operates in waters between 50 and 200 m water depth (Allen <i>et al.</i> , 2014, Newman et al. 2015). Stakeholders have advised that trawling can occur in depths of up to approximately 800 m.
				Fishing effort:	Based on State of over the past repor		PIRD, catch trends are seen to be increasing

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	Wo	odside Are	Activity a					
Fishery	Browse	NWS/S	NW Cape	Description				
					Pilbara Trawl (Interim) Managed Fishery caught 1996 t in 2018-19, 1780 t in 2017-18, 1529 t in 2016-17, 1172 t in 2015-16, 1105 t in 2014-15. Two Pilbara Trawl (Interim) Managed Fishery vessels in 2017 (Newman <i>et al.</i> , 2020a). Active vessels data are confidential as there were fewer than three vessels in the Pilbara Fish Trawl Interim Managed Fishery (Newman <i>et al.</i> , 2020a).			
				Active licences/vessels:				
Pilbara Trap Managed Fishery		✓	✓	Management area	The Pilbara Trap Fishery covers the area from Exmouth northwards and eastwards to the 120° line of longitude, and offshore as far as the 200 m isobath. Like the trawl fishery, the trap fishery is also managed using input controls in the form of individual transferable effort allocations monitored with a satellite-based vessel management system. The fishery includes six licences allocated to three vessels, operating principally from Onslow.			
				Species targeted		Fishing methods	Fishing depths	
				Pilbara Trap Managed Fishery catch is made up of around 45-50 different fish species. The four main species landed by the fisheries in the Pilbara region are bluespotted emperor, red emperor, goldband snapper and Rankin cod. Demersal fish traps. Greatest effort in waters less the depth targeting high value species as red emperor and goldband s				
				Fishing effort Based on State of the Fisheries annual reports provided by DPIRD, catch trends are seen to be increasing over the past reporting years: Pilbara Trap Managed Fishery caught 563 t in 2018-19, 573 t in 2017-18, 495 t in 2016-17, 510 t in 2015-16, 268 t in 2014-15. In 2018, the total catch for the Pilbara Trap Managed Fishery was 563 t, making up 21% of the total catch by the Pilbara Demersal Scale Fishery (Newman et al., 2019).				

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	Wo	odside Are	Activity					
Fishery	Browse	NWS/S	NW Cape	Description				
				Active In the 2019 season, there were six licences in the Pilbara Trap Managed Fishery, (Newman <i>et al.</i> , 2020a Active vessels data are confidential as there were fewer than three vessels in the Pilbara Trap Managed Fishery (Newman <i>et al.</i> , 2019).				
Pilbara Line Managed Fishery		√	✓	Management area The Pilbara Line Managed Fishery boat licences are permitted to operate anywhere within "Pilbara waters", bounded by a line commencing at the intersection of 21°56'S latitude and the high water mark on the western side of the North-west Cape on the mainland of WA; west along the parallel to the intersection of 21°56'S latitude and the boundary of the AFZ and north to longitude 120°E.				
				Species targeted		Fishing method	Fishing depths	
				The Pilbara Line Manais made up around 45-species. The Pilbara Line Manatargets similar demersa Pilbara Trap and Trawlas some deeper offshoruby snapper and eight The Pilbara Line Manaoperates on an exemptenables licence holders nominated five-month by year.	Pilbara Line Fishing Depth: Operates up to a depth of 600 m.			
				Based on State of the Fisheries annual reports provided by DPIRD, catch trends are seen to be increased over the past reporting years: Pilbara Line Managed Fishery caught 93 t in 2018-19, 143 t in 2017-18, 126 t in 2016-17, 97 t in 2015-40 t in 2014-15. The total catch in 2018 for the Pilbara Line Managed Fishery was 93 t, making up 3% of the total catch the Pilbara Demersal Scalefish Fishery (Newman et al., 2019).				

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	Wo	odside Are	Activity a						
Fishery	Browse	NWS/S	NW Cape	Description					
				Active licences/vessels In the 2018 season there are nine individual licences in the Pilbara Line Fishery, held by seven operators Active vessels data is confidential as there were fewer than three vessels in the Pilbara Line Fishery (Newman et al., 2018).					
Mackerel Managed Fishery	✓	√	√	Management area		shery extends from Geraldton to the Northern perley (Area 1), Pilbara (Area 2), and Gasco			
				Species targeted		Fishing methods	Fishing depth		
				Spanish mackerel (Sc commerson) Grey mackerel (S. sen Other species from the Scomberomorus	mifasciatus)	Near-surface trawling gear. Jig fishing.	Previous engagement with WAFIC suggests that the depth of fisheries may extend to 70 m.		
				Fishing effort:	Most of the catch is taken from waters off the Kimberley coasts (Lewis and Brand-Gardner, 2018), reflecting the tropical distribution of mackerel species (Molony <i>et al.</i> , 2015). Most fishing activity occu around the coastal reefs of the Dampier Archipelago and Port Hedland area, with the seasonal appearance of mackerel in shallower coastal waters most likely associated with feeding and gonad development before spawning (Mackie <i>et al.</i> , 2003). Based on State of the Fisheries annual reports provided by DPIRD, catch trends are as follows: 213 t in 2018-19 (the lowest on record (Lewis <i>et al.</i> , 2020), 283 t in 2017-18, 276 t in 2016-17, 302 t in 2015-16, 322 t in 2014-15.				
				Active Fifteen boats fished in 2018, with approximately 35-40 people directly employed in the N Fishery, primarily from May-November (Lewis <i>et al.</i> , 2020).		directly employed in the Mackerel Managed			
Marine Aquarium Managed Fishery	1	✓	✓	Management area					
				Species targeted		Fishing methods	Fishing depth		

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	Wo	odside Are	Activity a						
Fishery	Browse	NWS/S	NW Cape	Description					
				Finfish, hard coral, soft clams, syngnathids (se pipefish), other invertel molluscs, crustaceans, etc.), algae, seagrasse	eahorses and brates (including , echinoderms	The fishery is diver-based, which typically restricts effort to safe diving depths (less than 30 m).	Less than 30 m, as advised by WAFIC.		
				Fishing effort:		Total catch for the Marine Aquarium Managed Fishery in 2018 was 156,188 fishes, 32.025 t of coral, liverock and living sand and 176.02 L of marine plants and live feed.			
				Active licences/vessels:	Eleven licences we	ere active in 2019 (Newman et al., 2020b).			
Beche-de-mer Fishery	✓	√	√	Management area	Fishing occurs in the Ministerial Exempt	he northern half of WA from Exmouth Gulf to ions.	the NT border and is managed under		
				Species targeted	•	Fishing methods	Fishing depth		
				The sea cucumber fishery targets two main species: sandfish (Holothuria scabra) and redfish (Actinopyga echinites).		Diving	The targeted species typically inhabit nearshore in shallow depths.		
				Fishing effort		the Fisheries annual reports provided by DPI han and Santoro, 2020), 135t in 2017, 93t in			
				Active licences/vessels	Six active licences three vessels.	in 2019 (Hart et al., 2019). Active vessels da	ta is confidential as there were fewer than		
Onslow Prawn Managed Fishery		✓		Management area The Onslow Prawn Managed Fishery encompasses a portion of the continental shelf off the					
managed i isnery				Species targeted		Fishing methods	Fishing depth		

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	Wo	odside Are	Activity						
Fishery	Browse	NWS/S	NW Cape	Description					
				The fishery targets: Western king prawns (<i>Penaeus</i> esculentus) Brown tiger prawns (<i>Penaeus</i> esculentus) Blue endeavour prawns (<i>Metapenaeus</i> endeavouri		Low opening, otter prawn trawl systems.	Prawn trawling takes place in water depths of approximately 30 metres and less (licence holder feedback). Fishery and or fishing activity overlaps the Beadon Creek dredging scope (Sporer et al., 2015).		
				Fishing effort:	The total landings for the Onslow Prawn Managed Fishery in 2018 were less than 60 t below the target catch range (Kangas <i>et al.</i> , 2020a).				
				Active licences/vessels:	One vessel (Kanga	as <i>et al.</i> , 2020a).			
Pearl Oyster Managed Fishery	√	√	√	Management area		coastal waters with the pearl oyster managemouth to Kununurra and the seaward bound			
				Species targeted		Fishing methods	Fishing depth		
				Pearl oysters (<i>Pinctada maxima</i>).		Drift diving.	Fishing effort is mostly focussed in shallow coastal waters (10-15 m depth), with a maximum depth of 35 m (Lulofs et al. 2002).		
				Fishing effort:	caught for 2018-19	s taken from Zones 2 and 3 with no fishing in 9 was 614,002. Total effort was 15,637 dive lo fishing occurred in Zone 1 in 2017 and 20	hours, this was an increase from 2017 effort		
				Active licences/vessels:	15,637 diver hours	s (Hart <i>et al.</i> , 2020a).			
		√	√	Management area		Managed Fishery comprises WA waters off thand west of 120° 00′ east longitude. Areas of			

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	Wo	odside Are	Activity a						
Fishery	Browse	NWS/S	NW Cape	Description					
Pilbara Crab Managed Fishery				nearshore are currently closed as per Schedule 2 of the Draft Management Plan for the Pilbara Crab Managed Fishery.					
				Species targeted		Fishing methods	Fishing depth		
				Crabs of the Family Portunidae, excluding crabs of the genus <i>Scylla</i> .		Traps.	Up to 50 m deep.		
				Fishing effort:	The capacity of the fishery is 600 traps.				
				Active licences/vessels:	No information ava	ailable at this time.			
South-west Coast Salmon Managed	✓	√	✓	Management area	The South-west Coast Salmon Managed Fishery operates on various beaches south of the metropolitan area and includes all WA waters north of Cape Beaufort except Geographe Bay.				
Fishery				Species targeted		Fishing methods	Fishing depth		
				Western Australian salmon (Arripis truttaceus)		Beach seine nets.	Information not available however, species generally found in shallow waters (up to 30 m).		
				Fishing effort:	No fishing occurs north of the Perth metropolitan area, despite the managed fishery boundary external Cape Beaufort (WA/Northern Territory border), as advised by WAFIC. The 2018 commercial catch was 191 t, with 72% taken by the South West Coast Salmon Managed Fishery, 25% by the South Coast Salmon Managed Fishery and 3% by other fisheries (Duffy and E 2020a).		VAFIC. South West Coast Salmon Managed		
				Active licences/vessels:	Six licences.				
	✓	√	✓	Management area		ell Managed Fishery (SSMF) encompasses t eas adjacent to the population centres such a			

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	Wo	odside Are	Activity							
Fishery	Browse	S/SMN	NW Cape	Description						
Specimen Shell Managed Fishery				Geraldton, Perth, Mandurah, the Capes area and Albany (Hart <i>et al.</i> , 2020b). There are a number closed areas where the SSMF is not permitted to operate. These include various marine parks are reserves, such as Ningaloo Marine Park.						
				Species targeted		Fishing methods	Fishing depth			
				The Specimen Shell N targets the collection of for display, collection, sale.	of specimen shells	Collection is predominantly by hand when diving to wading in shallow, coastal waters, though in deeper water collection may be conducted by remotely operated vehicles (limited to one per licence).	For collection by hand, (diver-based) this typically restricts effort to safe diving depths (less than 30 m). ROV collection could enable depths up to 300 m (Hart et al., 2017). In the past there has been one licence holder in the Specimen Shell Managed Fishery who has trialled ROV means of shell collection, WAFIC have provided advice that this fishery is no longer active.			
				Fishing effort:	Information not available.					
						vere 31 licences with only two divers allowed in the water per licences at one time (Hart et number of people employed regularly in the fishery is likely to be about 21 (Hart et al.,				
West Australian Abalone Fishery	√	✓	√	Management area The Western Aus and NT border. The Mestern Aus and NT border.		ralian Abalone Fishery includes all coastal water fishery is concentrated on the south coast	aters from the WA and SA border to the WA and the west coast.			
				Species targeted		Fishing methods	Fishing depth			
				Greenlip abalone (<i>Hal</i> Brownlip abalone (<i>Hal</i> Roe's abalone (<i>Halioti</i>	liotis conicopora)	Divers.	Distribution to 5 m depth for Roe's abalone and 40 m depth for greenlip / brownlip abalone (DOF, 2011).			

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	Wo	odside Are	Activity a							
Fishery	Browse	NWS/S	NW Cape	Description						
				Fishing effort:	In 2018, the total commercial catch was 48 t, 1 t less than the catch in each of the last two seasons. No commercial fishing for abalone north of Moore River (Zone 8 of the managed fishery) has occurred since 2011–2012 (Strain <i>et al.</i> , 2018).					
				Active licences/vessels:	26 vessels active in Roe's abalone fishery (WAFIC ⁵).					
West Coast Deep Sea Crustacean	√	√	√	Management area	The West Coast Deep Sea Crustacean Managed Fishery extends north from Cape Leeuwin to the WA/NT border in water depths greater than 150 m within the AFZ.					
Managed Fishery				Species targeted		Fishing methods	Fishing depth			
				The fishery targets deepwater crustaceans. Catches were dominated by crystal crabs of which 99% of their Total Allowable Catch (TAC) was landed (How and Orme, 2020a). Crystal (snow) crab (<i>Chaceon albus</i>) Giant (king) crab (<i>Pseudocarcinus gigas</i>) Champagne (spiny) crabs (<i>Hypothalassia acerba</i>)		Baited pots, or traps, are operated in long-lines which have between 80 and 180 pots attached to a main line marked by a float at each end.	Deeper than 150 m (and mostly at depths of between 500 m – 800 m). Most of the commercial Crystal crab catch is taken in depths of 500 m – 800 m (WAFIC ⁶).			
				Fishing effort:	the fishery in 2017, using baited pots ly in depths between 500 and 800 m (How remantle and Carnarvon.					
				Active licences/vessels:	There were four ac	ctive vessels in 2018 (How and Orme, 2020a).			

⁵ https://www.wafic.org.au/fishery/roes-abalone-fishery/

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⁶ https://www.wafic.org.au/fishery/west-coast-deep-sea-crustacean-fishery/

	Woo	odside Are	Activity						
Fishery	Browse	NWS/S	NW Cape	Description					
Abrolhos Islands and Mid-West Trawl			✓	Management area	The Abrolhos Islan within the SWMR.	nds and Mid-West Trawl Fishery (AIMWTMF)	operates around the Abrolhos Islands		
Fishery				Species targeted		Fishing methods	Fishing depth		
				Saucer scallops (Ylistrum balloti, formerly Amusium balloti)		Trawl.	Information not available, however, the species occurs at depth of around 30-60 m and therefore fishing effort would likely be at these depths (Himmelman <i>et al.</i> , 2009).		
				Fishing effort:	The scallop landings in the AIMWTMF were 31.0 t meat weight (154.8 t whole weight). Between 2011 and 2015, the annual pre-season surveys showed very low recruitment (1-year old), as a result of the 2011 extreme marine heatwave and subsequent poor pawning stock (Kangas <i>et al.</i> , 2020b). The fishery was closed between 2011 and 2016.				
				Active licences/vessels:	Information about licences or vessels is not available but the Department of Primary Industry and Rouselopment reported 774 t of catch from this fishery in the 2019 annual report (DPIRD, 2019).				
Broome Prawn Managed Fishery	√			Management area	The Broome Prawn Managed Fishery (BPMF) operates off Broome and forms part of the North Coa Prawn Fishery.				
				Species targeted		Fishing methods	Fishing depth		
				Western king prawn (<i>Penaeus</i> latisulcatus) Coral prawn		Trawl.	Trawling is generally in waters between 30 and 60 m deep, however can occur down to 100 m (DOEH, 2004).		
				Fishing effort:	BPMF recorded extremely low fishing effort in 2018. Only two vessels undertook trial fishing to investig whether the catch rates were sufficient for commercial fishing. This resulted in negligible landings of Western king prawn (Kangas <i>et al.</i> , 2020a).				

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	Woodside Activity Area									
Fishery	Browse	NWS/S	NW Cape	Description						
				Active Two vessels conducting fishing trial operated in 2018 (Kangas <i>et al.</i> , 2020a).						
Exmouth Gulf Prawn Managed Fishery			✓	Management area The estimated employment in the fishery in 2017 was 18 people including skippers and other (Kangas <i>et al.</i> , 2018). The fishery occupies a total area of 4000 km², with only half of this are trawled (Fletcher and Santoro, 2015).						
				Species targeted		Fishing methods	Fishing depth			
				Western king prawn (Penaeus latisulcatus) Brown tiger prawn (Penaeus esculentus) Blue endeavour prawn (Metapenaeus endeavouri) Banana prawn (Penaeus merguinensis)		Trawl.	Information not available.			
				Fishing effort:		of prawns in 2018 were 880 t (Kangas <i>et al.</i> , ours resulted in a catch of 822 t.	2020a). In the 2016 season, a fishing effort			
				Active licences/vessels: The precise number of vessels is unreported. Eighteen people were said to be employed in t 2018 (Kangas <i>et al.</i> , 2019); however, in 2013 it was reported that 18 skippers as well as other support staff were employed (WAFIC ⁷).						
Gascoyne Demersal Scalefish Managed Fishery			✓	Management area	ment area The Gascoyne Demersal Scalefish Fishery (GDSF) is located between the southern Ningaloo Coast to south of Shark Bay (23°07.30'S to 26°.30'S) with a closure area at Point Maud to Tantabiddi (21°56.30'S) (WAFIC8).					
				Species targeted		Fishing methods	Fishing depth			

⁷ https://www.wafic.org.au/fishery/exmouth-gulf-prawn-fishery/

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⁸ https://www.wafic.org.au/fishery/gascoyne-demersal-scalefish-fishery/

	Woo	odside Are	Activity								
Fishery	Browse	NWS/S	NW Cape	Description							
				Pink snapper (Chrysophrys auratus) Goldband snapper (Pristipomoides multidens) Red emperor (Lutjanus sebae) Cods (Gadus morhua) Emperors (Lethrinus miniatus)		Mechanised handlines.	Information not available.				
				Fishing effort:	The GDSF reporte	d a total commercial catch of 210 t in 2017-1	8.				
				Active In 2018, 13 vessels fished during the season, in the 2017 season there were 16 vessels (Gallicences/vessels: Santoro, 2018).							
Kimberley Developing Mud	✓			Management area		veloping Mud Crab Fishery is one of two sma gion between Cambridge Gulf and Broome (0					
Crab Fishery				Species targeted		Fishing methods	Fishing depth				
				Brown mud crab (Scyll Green mud crab (Scyll		Trap.	Information not available.				
				Fishing effort:	rate of 0.66 kg/trap	represents all commercially caught mud crab olift was recorded for 2018, which is a 28% do reshold (Johnston <i>et al.</i> , 2020).					
						ently three licences issued to commercial operators (600 trap limit), and three exemptions enous groups (total of 210 traps currently allocated of a maximum 600 traps) (Johnston et					
Nickol Bay Prawn Managed Fishery		✓		Management area	The Nickol Bay Pra along the NWS.	awn Managed Fishery operates in nearshore	and offshore waters of the Pilbara region				
				Species targeted		Fishing methods	Fishing depth				

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	Wo	odside Are	Activity a	Description					
Fishery	Browse	S/SMN	NW Cape						
				Banana prawn (Penaeus merguiensis) Western king prawn (Penaeus latisulcatus) Brown tiger prawn (Penaeus esculentus) Blue endeavour prawn (Metapenaeus endeavouri)		Trawl.	Information not available.		
				Peninsula, includi the 2018 season		rawling has been reported to occur at several locations along the Pilbara coast to the east of the Burrup eninsula, including within the waters of Nickol Bay (Fletcher and Santoro, 2015). The total landings for le 2018 season were 81 t. Fishing effort was less than half at 138 days, compared to 281 boat days in 017 (Kangas <i>et al.</i> , 2020a).			
				Active The precise number of vessels is unreported, though low effort produced a catch of 17 t in 2016 (licences/vessels: et al., 2018).					
Northern Demersal Scalefish Managed Fishery	✓			Management area The fishery is divided into two fishing areas: an inshore sector (Area 1) and an offshore sector (Newman <i>et al.</i> , 2018). Area 1 permits line fishing only, between the high water mark and the isobath. Area 2 permits handline, dropline and fish trap fishing methods and is further divided Zone A is an inshore area, Zone B comprises the area with most historical fishing activity, an an offshore deep slope area representing waters deeper than 200 m (Fletcher <i>et al.</i> , 2017).					
				Species targeted		Fishing methods	Fishing depth		
				Goldband snapper (<i>Primultidens</i>) Blue-spotted emperor (punctulantus) Red emperor (<i>Lutjanus</i> Rankin cod (<i>Epinephel</i>	(Lethrinus s sebae)	Line fishing, handline, dropline and fish trap fishing.	Information not available.		

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	Woodside Activity Area								
Fishery est of Security Secur									
				Fishing effort:	Fishing effort: In 2018, the fishery reported a total catch of 1297 t. Most of the catch is landed from Zone B, with a cat of 1106 t in 2018. The level of catch in Zone B is the highest reported since zoning was implemented in 2006 (Newman et al., 2019).				
				Active licences/vessels:					
Octopus Interim Management				Management area	The developing Octopus Fishery operates from Kalbarri Cliffs in the north to Esperance in the south.				
Fishery				Species targeted		Fishing methods	Fishing depth		
				Octopus sp. cf. tetricus	,	Passive shelter pots and active traps.	In inshore waters to a depth of 70 m (DPIRD, 2018).		
				Fishing effort:	In 2019, the total commercial octopus catch was 314 t, which was 22% higher than the 2017 catch of 25 t. In 2016, about 200 vessels reported a total catch of 252 t (Hart <i>et al.</i> , 2020c).				
				Active licences/vessels:	About 21 vessels fish within the octopus specific fisheries, and about 200 vessels from the West Coa Rock Lobster Fishery catch octopus as bycatch (Gaughan and Santoro, 2018).				
Shark Bay Beach Seine and Mesh Net				Management area	The Shark Bay Bea	ach Seine and Mesh Net Managed Fishery o	perates from Denham.		
Managed Fishery				Species targeted		Fishing methods	Fishing depth		
				Whiting (yellowfin Sillag and goldenline S. anali Sea mullet (Mugil ceph Tailor (Pomatomus sali Western yellowfin brea australis)	s) valus) tatrix)	Beach seine and mesh net.	Information not available.		

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	Woo	odside Are	Activity a					
Fishery	Browse	S/SMN	NW Cape	Description				
				Fishing effort:	In 2018, the total catch was 176 t (Gaughan and Santoro, 2020). The fishery currently employs about fishers based on the seven fishery licences in operation (WAFIC ⁹).			
				Active licences/vessels:	Six vessels operated employing around 12 fishers (Gaughan and Santoro, 2018).			
Shark Bay Crab Managed Fishery				Management area	ent area The Shark Bay Crab Managed Fishery operates within the NWMR.			
Manageu i isnery				Species targeted		Fishing methods	Fishing depth	
				Blue swimmer crab (F	Portunus armatus)	Trap and trawl.	Information not available.	
				Fishing effort:	Commercial fishing for blue swimmer crabs in Shark Bay was voluntarily halted by industry in 2012 to facilitate stock rebuilding. The stock is still in a recovery phase; however, the fishery has resumed and reported a total commercial catch of 518 t in the 2017/18 season. The average commercial trap catch rate was 1.5 kg/traplift during 2017/18 (Chandrapavan <i>et al.</i> , 2017).			
				Active licences/vessels:		The precise number of vessels in the Shark Bay Blue Swimmer Crab Fishery is unreported. There are five crab trap permits. These permits are consolidated onto three active vessels (WAFIC ¹⁰).		
Shark Bay Prawn and Scallop				Management area	The Shark Bay Pra	awn Managed Fishery is the highest produc	ing WA fishery for prawns.	
Managed Fishery				Species targeted		Fishing methods	Fishing depth	
				Western king prawn (natisulcatus) Brown tiger prawn (Pe		Low-opening otter trawls.	Information not available.	

⁹ https://www.wafic.org.au/fishery/inner-shark-bay-scalefish-fishery/

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¹⁰ https://www.wafic.org.au/fishery/shark-bay-prawn-and-scallop-managed-fisheries/

	Wo	odside Are	Activity a							
Fishery	Browse	NWS/S	NW Cape	Description						
				Endeavour prawns (Mendeavouri) Coral prawns (Metape Saucer scallop (Amusi	naeopsis sp.)					
				Fishing effort:		ne Shark Bay Scallop Managed Fishery is currently in a recovery phase due to the results from the pre- eason survey of stock abundance (Fletcher and Santoro, 2015; Kangas et al., 2018).				
				Active licences/vessels:	100 people are em	er of vessels in the Shark Bay Prawn Manag ployed in this fishery (Gaughan and Santorc p fishing in the Shark Bay and South Coast	o, 2018). About 20 skippers and crew are			
South Coast Crustacean Managed Fishery	-	-	-	Management area	Rock Lobster Mana	Crustacean Managed Fishery comprises four aged Fishery, the Esperance Rock Lobster Nation Fishery and the South Coast Deep-Sea	Managed Fishery, the Southern Rock			
				Species targeted		Fishing methods	Fishing depth			
				Southern rock lobster (<i>Jasus edwardsii</i>) Western rock lobster (<i>Panulirus cygnus</i>) Giant crab (<i>Pseudocarcinus gigas</i>) Crystal crab (<i>Chaceon albus</i>) Champagne crab (<i>Hypothalassia acerba</i>)		Information not available.				
				Fishing effort: The South Coast Crustacean Managed Fishery reported a total catch of 101.2 t in 2018 season value of the fishery for 2017/2018 was about \$5.9 million (Howe and Orme, 2020b).						
				Active licences/vessels: The number of vessels is unknown; however, a total of 1977 pots are licensed to be used.		ots are licensed to be used.				
	-	-	-	Management area		e in coastal waters between Cape Leeuwin a any, Bremer Bay and Esperance (Norriss ar				

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Woodsid A			_								
Fishery	Browse	NWS/S	NW Cape	Description							
South Coast Purse Seine Managed				Species targeted		Fishing methods	Fishing depth				
Fishery						and yellowta nets from ve Sandy sprat		Small pelagic finfish su and yellowtail scad usi nets from vessels. Sandy sprat (<i>Hyperlop</i> Blue sprat (<i>Spratelloid</i>)	ng purse seine hus vittatus)	Purse seine.	Information not available.
				Fishing effort:	In the 2017/18 season the total catch effort was 2,168 t (Norriss and Blazeski, 2020).						
				Active licences/vessels:	Nine active vessels	s in 2017/18 (Norriss and Blazeski, 2020).					
South-west Trawl Managed Fishery	-	-	-	Management area	The South-west Trawl Managed Fishery is a multi-species fishery and includes two of WA's smaller scallop fishing grounds at Fremantle and north of Geographe Bay (Fairclough and Walters, 2018).						
				Species targeted		Fishing methods	Fishing depth				
				Scallops (Ylistrum balla Amusium balloti) and a products Western king prawn (F latisulcatus) In years of low scallop may use other trawl ge species.	Penaeus catches licencees	Trawl.	Information not available.				
				Fishing effort:	Effort in the fishery scallops and prawr	r is highly variable and typically fluctuates in ns. The fishery was not active in 2015 or 201	response to recruitment variability in saucer 6 (Fairclough and Walters, 2018).				
				Active licences/vessels:	Only one boat fishe	ed in 2018 for a total of 5 boat days for minin	nal catch (Fairclough and Walters, 2018).				

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	Wo	odside Are	Activity a					
Fishery	Browse	NWS/S	NW Cape	Description				
The South Coast Salmon Managed	-		Management area		Salmon Managed Fishery is one of two fishe ore and estuarine finfish.	eries operating in the South Coast Bioregion		
Fishery				Species targeted		Fishing methods	Fishing depth	
				Western Australian sal truttaceus) Southern school whitin bassensis) Australian herring (Arr King George whiting (Spunctatus) Sea mullet (Mugil cepl Estuary cobbler (Cnide macrocephalus) Black bream (Acantho	ng (Sillago ripis georgianus) Sillaginodes halus) oglanis	Beach seines, haul nets and gill nets.	Information not available.	
				Fishing effort:	The total catch for	for 2018 was 243 t (Duffy and Blay, 2020b).		
				Active licences/vessels:	Number of vessels is unknown; however, 12 commercial fishers were employed in 2018 2020b).		ers were employed in 2018 (Duffy and Blay,	
West Coast Beach Bait Managed	-	-	-	Management area	Primarily active in	the Bunbury areas in the SWMR.		
Fishery				Species targeted	Species targeted Fishing n		Fishing depth	
				Whitebait		Beach-based haul nets.	Information not available.	
				Fishing effort:	In recent years the t (Duffy and Blay, 2		rea. Total catch of whitebait in 2015 was 40.2	

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	Wo	odside Are	Activity a					
Fishery	Browse	NWS/S	NW Cape	Description				
				Active licences/vessels:	Number of vessels	s is unknown; however, only one license wa	as issued (DPIRD, 2019).	
West Coast Demersal Gillnet and Demersal Longline (Interim)				Management area	The West Coast Demersal Gillnet and Demersal Longline (Interim) Managed Fishery (WCDGDLF) is part of the Temperate Demersal Gillnet and Demersal Longline Fishery (TDGDLF), which operates between 26° and 33° S, and the Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery (JASDGDLF), which operates from 33° S to the WA/SA border (Braccini and Blay, 2020).			
Managed Fishery				Species targeted		Fishing methods	Fishing depth	
				Gummy shark (<i>Muste</i> Dusky shark (<i>Carchar</i> Whiskery shark (<i>Furg</i> Sandbar shark (<i>C. plu</i>	rhinus obscurus) aleus macki)	Gillnet and longline.	Information not available.	
				Fishing effort: Catch estimated annual value of the fishery was \$0.2 million for 2017 to 2018 (Braccini and Blay,				
				Active licences/vessels:		re unknown; however, 17 interim managed n 18 and 21 skippers and crew were emplo	fishery permits were held in 2019 (DPIRD, yed between 2016 and 2017.	
West Coast Demersal Scalefish Fishery	Demersal Scalefish		-	Management area	These fisheries include the West Coast Demersal Scalefish (Interim) Managed Fishery (51 boats), West Coast Demersal Gillnet and Demersal Longline (Interim) Managed Fishery and the temperate Demersal Gillnet and Demersal Longline Fisheries. The West Coast Demersal Scalefish Managed is the main commercial fishery that targets demersal species in the West Coast Bioregion. It enconthe waters from just south of Shark Bay down to just east of Augusta and extends seaward to the 2 boundary. The fishery is divided into four inshore management areas and one offshore management) Managed Fishery and the temperate t Coast Demersal Scalefish Managed Fishery in the West Coast Bioregion. It encompasses Augusta and extends seaward to the 200 nm	
				Species targeted		Fishing methods	Fishing depth	
				Baldchin groper (Choo Dhufish (Glaucosoma Pink snapper (Pagrus	hebraicum)	Lines.	Inshore species – 20 to 250 m water depth.	

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	Woodside Activity Area								
Fishery	Browse	NWS/S	NW Cape	Description					
							Offshore species – more than 250 m water depth.		
				Fishing effort:	In 2016, the West	Coast Demersal Scalefish (interim) Manage	d Fishery reported a total catch of 256 t.		
				Active licences/vessels:	The precise number of vessels in the West Coast Demersal Scalefish Fisheries is unreported; however is restricted to 60 interim managed fishery permit holders.				
West Coast Purse Seine Managed	-	-	-	Management area	Located in waters t	from Cape Bouvard extending to Lancelin.			
Fishery				Species targeted		Fishing methods	Fishing depth		
				Small pelagic finfish su Scaly mackerel (Sardin Pilchards (Sardinops s Australian anchovy (En Yellowtail scad (Trachin novaezelandiae) Maray (Etrumeus teres	nella lemuru) ragax) ngraulis australis) urus	Purse seine.	Information not available.		
				Fishing effort:	Information not ava	ailable	•		
				Active licences/vessels:	Seven vessels in 2	2017 (Gaughan and Santoro, 2018).			
West Coast Rock Lobster Managed Fishery			✓	Management area	The West Coast Rock Lobster Fishery operates from Shark Bay south to Cape Leeuwin. The fishery is managed using zones, seasons and total allowable catch. The recreational fishery targets the western rock lobsters using baited pots and by diving between North-west Cape and Augusta.				

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Woodside Activity Area							
Fishery	Browse	NWS/S	NW Cape	Description			
				Species targeted		Fishing methods	Fishing depth
				Western rock lobster (Panulirus cygnus)		Baited pots.	Less than 20 m.
				Fishing effort:	Fishing effort: In 2018, 234 vessels reported a total catch of 6400 t in 2017 (de Lestang <i>et al.</i> , 2018). In 2016, a vessels reported a total catch of 6,086 t (Gaughan and Santoro, 2018).		
				Active 234 vessels operated in 2017 and 233 vessels operated in 2018 (Gaughan and Santoro, 2018).			8 (Gaughan and Santoro, 2018).

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11.5.2 Aquaculture

Aquaculture operations in the northwest are typically restricted to inland and shallow coastal waters.

West Coast Bioregion

Aquaculture activities in the West Coast bioregion, defined by the Department of Primary Industries and Regional Development (DPIRD) (as the government body responsible management of primary industries in WA) are focused on blue mussels and edible oysters (mainly in Cockburn Sound) and marine algae for production of beta-carotene, used as a food additive and as a nutritional supplement. Offshore marine finfish production is also being developed, initially focusing on yellowtail kingfish.

There is also an emerging black pearl industry (from the *Pinctada margaritifera* oyster) in the Abrolhos Islands. As well as expansion in the production of Akoya pearls (small white pearls from *Pinctada fucata martensi*), *Pinctada albina* (small, yellow pearls) and *Pteria penguin*, which are often used to produce half (mabe) pearls in pink and bluish shades.

Aquaculture licences for producing coral and live rock (pieces of old coral reefs colonised by marine life, such as beneficial bacteria, for aquariums) at the Abrolhos Islands have also been issued and other applications are being assessed.

Gascoyne Coast Bioregion

In the Gascoyne Coast bioregion, aquaculture activities are focused on the blacklip oyster (*Pinctada margaritifera*) and Akoya pearl oyster (*Pinctada imbricata*) (Gaughan and Santoro, 2020). Several hatcheries supply *P. margaritifera* juveniles to the region's developing black pearl farms.

Other aquaculture developments in the Gascoyne Coast bioregion include emerging producers of coral and live rock species for aquariums.

North Coast Bioregion

Aquaculture activities in the North Coast bioregion is dominated by the production of pearls. A large number of pearl oysters for seeding are obtained from wild stocks and supplemented by hatchery produced oysters, with major hatcheries operating at Broome and around the Dampier Peninsula (Gaughan and Santoro, 2018). Primary spawning of the pearl oyster occurs from mid-October to December. A smaller secondary spawning occurs in February and March (Gaughan and Santoro, 2020).

Other aquaculture developments in the North Coast include emerging producers of coral and live rock species for aquariums as well as barramundi (*Lates calcarifer*) farms and microalgae culturing for Omega-3, biofuels and protein biomass (Gaughan and Santoro, 2020).

11.6 Fisheries – Traditional

Traditional or customary fisheries are typically restricted to shallow coastal waters and/or areas with structures such as reef.

Dugong, fish and marine turtles that move between coastal and Commonwealth waters are important components of the Aboriginal people's culture and diet. Aboriginal people continue to actively manage their sea country in coastal waters of WA in order to protect and manage the marine environment, its resources and cultural values.

Indonesian fishers can fish within designated areas under the Australia-Indonesia Memorandum of Understanding regarding the Operations of Indonesian Traditional Fishermen in Areas of the Australian Fishing Zone and Continental Shelf – 1974 (MoU 74). Traditional fishing is allowed within the MoU Box (**Figure 11-1**), which encompasses: Ashmore Reef (Pulau Pasir), Cartier Island (Pulau Baru), Seringapatam Reef (Afringan), Scott Reef (Pulau Dato) and Browse Island (Berselan). Restrictions have since been introduced around Ashmore Reef and Cartier Island following their

designation as Nature Reserves under the Commonwealth's *National Parks and Wildlife Conservation Act 1975* in 1983 and 2000, respectively.

The MoU allows Indonesian fishers to fish in designated areas using traditional methods only. These methods include reef gleaning, free-diving, hand lining and other non-mechanised methods. Scott Reef is currently the principal reef in the MoU 74 Box and is utilised seasonally by Indonesian fishers to harvest trepang, trochus shells and other reef species. The peak season is July to October due to more favourable wind conditions, and to allow fishers to sun dry their catch on their boat decks (ERM, 2009). Browse Island is also frequently visited by shark fishers who mostly fish along the eastern margin of the MoU 74 Box.

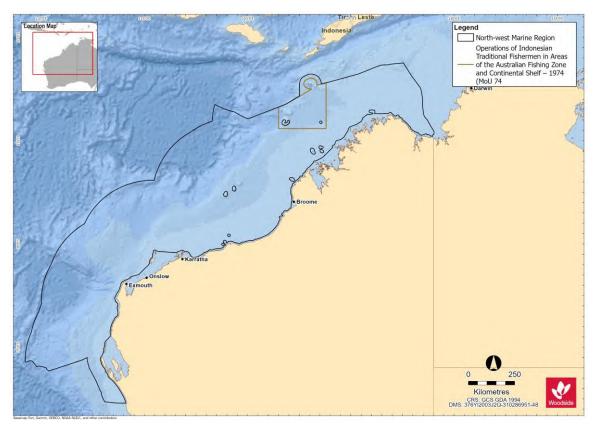


Figure 11-1 MOU 74 Box. Operations of Indonesian Traditional Fishermen in Areas of the Australian Fishing Zone and Continental Shelf – 1974

11.7 Tourism and Recreation

There are growing tourism and recreational sectors in WA. The Kimberley, Pilbara and Gascoyne regions are popular visitor destinations for Australian and international tourists. Tourism is concentrated in the vicinity of population centres including Broome, Dampier, Exmouth, Coral Bay and Shark Bay.

Recreational and tourism activities include: charter fishing, other recreational fishing, diving, snorkelling, marine fauna watching, and yachting.

11.7.1 Gascovne Region

Outside the petroleum industry, tourism is the largest revenue earner of all the major industries of the Gascoyne region. It contributes significantly to the local economy in terms of both income and

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employment. In 2018 there was an average of 337,400 visitors with a visitor spend of \$359 million (Gascoyne Development Commission¹¹).

In 2018-19, the Ningaloo region (Ningaloo Reef and the surrounding coastal region Exmouth Gulf, communities of Exmouth and Coral Bay, and adjacent proposed southern coastal reserves and pastoral leases) contributed an estimated \$110 million in value added to the WA economy (DCBA, 2020). Ningaloo's economic contribution to WA is attributed to four key types of economic activity, tourism expenditure by international, interstate and WA visitors to the Ningaloo region, commercial fishing in the Exmouth Gulf, recreation activity involving the Reef by residents of the Ningaloo region and management and research relating to the Reef (DCBA, 2020). More than 90% of this value added is attributed to the domestic and international tourists who visit Ningaloo each year (DCBA, 2020). The main marine nature-based tourist activities are concentrated around and within the Ningaloo WHA.

11.7.2 Pilbara region

Recreation and tourism activities within the Pilbara are of high social value. Tourism is a key economic driver for the Pilbara with more than 1 million visitors to the region every year, generating \$413 million in gross revenue annually (Pilbara Development Commission¹²).

Recreational fishing within the Pilbara region tends to be concentrated in State waters adjacent to population centres. Recreational fishing is known to occur around the Dampier Archipelago with boats launched from boat ramps around Dampier and Karratha (Williamson *et al.*, 2006). Once at sea, charter vessels may also frequent the waters surrounding the Montebello Islands.

11.7.3 Kimberley Region

Recreation and tourism activities in the Kimberley region occur predominantly in WA State waters (extending offshore 3 nm from the mainland), adjacent to coastal population centres (e.g. Broome), with a peak in activity during the winter months (dry season). These activities include recreational fishing, diving, snorkelling, wildlife watching and boating.

Primary dive locations in the Kimberley region include the Rowley Shoals, including Mermaid Reef AMP, Scott Reef, Seringapatam Reef, Ashmore Reef AMP and Cartier Island.

11.8 Shipping

Commercial shipping traffic is high within the NWMR with vessel activities including commercial fisheries, tourism such as cruises, international shipping and oil and gas operations. There are 12 ports adjacent to the NWMR, including the major ports of Dampier, Port Hedland and Broome, which are operated by their respective port authorities. These ports handle large tonnages of iron ore and petroleum exports in addition to salt, manganese, feldspar chromite and copper (DEWHA, 2008).

Heavy vessel traffic exists within the Pilbara Port Authority management area which recorded 10,064 vessel movements in Port of Dampier 2019/20 annual reporting period (PPA, 2020). Twenty-six designated anchorages for bulk carriers, petroleum and gas tankers, drilling rigs, offshore platforms, and pipelay vessels are located offshore of Rosemary Island.

In 2012, AMSA established a network of shipping fairways off the northwest coast of Australia. The shipping fairways, while not mandatory, aim to reduce the risk of collision between transiting vessels and offshore infrastructure. The fairways are intended to direct large vessels such as bulk carriers and LNG ships trading to the major ports into pre-defined routes to keep them clear of existing and planned offshore infrastructure (AMSA, 2013).

¹¹ https://www.gdc.wa.gov.au/industry-profiles/tourism/

¹² https://www.pdc.wa.gov.au/our-focus/strategicinitiatives/tourism

11.9 Oil and Gas Infrastructure

The NWMR supports a number of industries including petroleum exploration and production.

Within the NWMR there are seven sedimentary petroleum basins: Northern and Southern Carnarvon basins, Perth, Browse, Roebuck, Offshore Canning and Bonaparte basins. Of these, the Northern Carnarvon, Browse and Bonaparte basins hold large quantities of gas and comprise most of Australia's reserves of natural gas (DEWHA, 2008), which is reflected by the level of development in the area. In addition to existing facilities, there are proposed developments in the region. This includes proposals to develop gas and condensate from a number of fields within the NWMR.

In addition to the oil and gas industry, other land-based industries depend upon the marine environment in the nearshore area. These include ports, salt mines such as Karratha and Onslow, LNG onshore processing facilities such as Burrup Hub, Thevenard Island, Barrow Island, Varanus Island, and small-scale desalination plants at Barrow Island, Burrup, Cape Preston, and Onslow.

11.10 Defence

Key Australian Department of Defence (DoD) operational areas and facilities areas of the NWMR for training and operational activities, include:

- An operating logistics base has been established in Dampier to support vessels patrolling the waters around offshore oil and gas facilities. A dedicated navy administrative support facility is also being constructed at the nearby township of Karratha.
- The Royal Australian Air Force currently maintains two 'bare bases' in remote areas of WA that are used for military exercises. One of these is the Royal Australian Air Force Base in Learmonth. The Royal Australian Air Force maintains the Commonwealth Heritage listed Learmonth Air Weapons Range Facility, which is located between Ningaloo Station and the Cape Range National Park. The air training area associated with the Learmonth base extends over the offshore region.
- The Royal Australian Air Force Base Curtin is located on the north coast of WA, south-east
 of Derby and 170 km east of Broome. It provides support for land, air and sea operations
 aimed to support Australia's northern approaches.
- The Naval Communications Station Harold E. Holt is located ~6 km north of Exmouth. The
 main role of the station is to communicate at very low frequencies (19.8 kHz) with Australian
 and United States submarines and ships in the eastern Indian Ocean and the western Pacific
 Ocean.

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APPENDIX A. PROTECTED MATTER SEARCH REPORTS FOR NWMR, SWMR AND NMR

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 10/05/21 12:59:15

Summary

Details

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

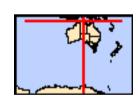
Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates
Buffer: 1.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	33
Listed Migratory Species:	70

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	127
Whales and Other Cetaceans:	25
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	15

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	2
Regional Forest Agreements:	None
Invasive Species:	1
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	8

Details

Matters of National Environmental Significance

Commonwealth Marine Area

[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

Name

EEZ and Territorial Sea
Extended Continental Shelf

Marine Regions

[Resource Information]

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

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North

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Erythrura gouldiae Gouldian Finch [413]	Endangered	Species or species habitat may occur within area
Falcunculus frontatus whitei Crested Shrike-tit (northern), Northern Shrike-tit [26013]	Vulnerable	Species or species habitat likely to occur within area
<u>Limosa lapponica baueri</u> Nunivak Bar-tailed Godwit, Western Alaskan Bar-	Vulnerable	Species or species

Name	Status	Type of Presence
tailed Godwit [86380]		habitat known to occur
		within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
		KIIOWII to occur within area
Rostratula australis		
Australian Painted Snipe [77037]	Endangered	Species or species habitat
	-	may occur within area
Mammals		
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Species or species habitat
	Valiforable	likely to occur within area
		,
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat
		likely to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Species or species habitat
• •		likely to occur within area
Me and de man a letter a		
Macroderma gigas Chart Bot [174]	\/ulaarabla	Charles an anasias bables
Ghost Bat [174]	Vulnerable	Species or species habitat
		likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat
		likely to occur within area
Notomyo oguilo		
Notomys aquilo Northern Henning mouse, Wearrentinte [122]	Endongorod	Charles or angoing habitat
Northern Hopping-mouse, Woorrentinta [123]	Endangered	Species or species habitat may occur within area
		may occar within area
Saccolaimus saccolaimus nudicluniatus		
Bare-rumped Sheath-tailed Bat, Bare-rumped	Vulnerable	Species or species habitat
Sheathtail Bat [66889]		may occur within area
Xeromys myoides		
Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat
Trater medee, raise trater rat, rimes [ee]	Valiforable	may occur within area
		•
Reptiles		
Caretta caretta Laggerhand Turtle [1762]	Endangered	Forgaina fooding or related
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur
		within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Breeding known to occur
		within area
Cryptoblepharus gurrmul	Fadanasa	O
Arafura Snake-eyed Skink [83106]	Endangered	Species or species habitat known to occur within area
		MIOWIT TO OCCUP WITHIN AIRA
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Congregation or
		aggregation known to occur
Erotmocholye imbricate		within area
Eretmochelys imbricata	Vulnarabla	Prooding known to occur
Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<u>Lepidochelys olivacea</u>		within area
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur
,	J	within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Breeding known to occur
Sharks		within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat
initial chair, creat trinto chair [o i ii o]		may occur within area
		-

Name	Status	Type of Presence
Glyphis garricki Northern River Shark, New Guinea River Shark [82454]	Endangered	Species or species habitat known to occur within area
Glyphis glyphis Speartooth Shark [82453]	Critically Endangered	Species or species habitat may occur within area
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756] Pristis zijsron	Vulnerable	Species or species habitat known to occur within area
Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species * Species is listed under a different scientific name on	the EPBC Act - Threatened	[Resource Information] I Species list.
Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Foraging, feeding or related behaviour known to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area
Sterna dougallii Roseate Tern [817]		Breeding known to occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Sula leucogaster Brown Booby [1022]		Breeding known to occur within area
Migratory Marine Species		
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Congregation or aggregation known to occur within area
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Isurus paucus Longfin Mako [82947]		Species or species habitat likely to occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat likely to occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area

N I		T (D
Name	Threatened	Type of Presence
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Pristis clavata		
Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Drietie prietie		
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat known to occur within area
<u>Pristis zijsron</u>		
Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Breeding known to occur
Tursiops aduncus (Arafura/Timor Sea populations)		within area
Spotted Bottlenose Dolphin (Arafura/Timor Sea		Species or species habitat
populations) [78900]		Species or species habitat known to occur within area
Migratory Terrestrial Species		
Cecropis daurica		
Red-rumped Swallow [80610]		Species or species habitat may occur within area
<u>Cuculus optatus</u>		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat
		may occur within area
<u>Hirundo rustica</u>		
Barn Swallow [662]		Species or species habitat may occur within area
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava		
		Charles or analisa habitat
Yellow Wagtail [644]		Species or species habitat may occur within area
Migratory Wetlands Species		
Acrocephalus orientalis		
Oriental Reed-Warbler [59570]		Species or species habitat may occur within area
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres		
Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba		
Sanderling [875]		Species or species habitat
		likely to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Calidris ruficollis		
Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<u>Charadrius veredus</u>		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Glareola maldivarum		
Oriental Pratincole [840]		Species or species habitat may occur within area
<u>Limicola falcinellus</u>		
Broad-billed Sandpiper [842]		Species or species habitat likely to occur within area
<u>Limosa lapponica</u>		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<u>Limosa limosa</u>		
Black-tailed Godwit [845]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Species or species habitat known to occur within area
Numenius phaeopus		
Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
Pluvialis fulva		
Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola		
Grey Plover [865]		Species or species habitat known to occur within area
Thalasseus bergii		_
Greater Crested Tern [83000] <u>Tringa brevipes</u>		Breeding likely to occur within area
Grey-tailed Tattler [851]		Species or species
,		

Name	Threatened	Type of Presence
Tringa nebularia		habitat known to occur within area
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area

Tringa stagnatilis

Marsh Sandpiper, Little Greenshank [833] Species or species habitat

known to occur within area

Xenus cinereus

Curlew Sandpiper [856]

Pectoral Sandpiper [858]

Calidris melanotos

Terek Sandpiper [59300] Species or species habitat

known to occur within area

Species or species habitat known to occur within area

Species or species habitat

may occur within area

Other Matters Protected by the EPBC Ad	ct	
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name		
Name	Threatened	Type of Presence
Birds Acrocephalus orientalis		
Oriental Reed-Warbler [59570]		Species or species habitat may occur within area
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus		
Common Noddy [825]		Foraging, feeding or related behaviour known to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Arenaria interpres		
Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba		
Sanderling [875]		Species or species habitat likely to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
	.	

Critically Endangered

Name	Threatened	Type of Presence
Calidris ruficollis		•
Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<u>Calonectris leucomelas</u>		
Streaked Shearwater [1077]		Species or species habitat known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius ruficapillus		
Red-capped Plover [881]		Species or species habitat known to occur within area
<u>Charadrius veredus</u>		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Fregata ariel		
Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Fregata minor		
Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area
Glareola maldivarum		
Oriental Pratincole [840]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Heteroscelus brevipes		
Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
Himantopus himantopus		
Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
Hirundo daurica		
Red-rumped Swallow [59480]		Species or species habitat may occur within area
Hirundo rustica		
Barn Swallow [662]		Species or species habitat may occur within area
<u>Limicola falcinellus</u>		
Broad-billed Sandpiper [842]		Species or species habitat likely to occur within area
Limosa lapponica		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<u>Limosa limosa</u>		
Black-tailed Godwit [845]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat
		may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat
		may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat
,		known to occur within area
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Species or species habitat
Little Carlow, Little Williams (C. 10)		known to occur within area
Numenius phaeopus Whimbrol [240]		Species or species habitat
Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
		Known to occur within area
Pluvialis fulva		
Pacific Golden Plover [25545]		Species or species habitat
		known to occur within area
Pluvialis squatarola		
Grey Plover [865]		Species or species habitat
		known to occur within area
Recurvirostra novaehollandiae		
Red-necked Avocet [871]		Species or species habitat
		known to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat
		may occur within area
Sterna albifrons		
Little Tern [813]		Species or species habitat
		may occur within area
Sterna bengalensis		
Lesser Crested Tern [815]		Breeding known to occur
		within area
Sterna bergii		-
Crested Tern [816]		Breeding likely to occur within area
Sterna dougallii		within area
Roseate Tern [817]		Breeding known to occur
Stiltie ieebelle		within area
Stiltia isabella Australian Pratincole [818]		Species or species habitat
Additalian Fraumoolo [010]		known to occur within area
Cula lavas statis		
Sula leucogaster Provin Booky [1022]		Prooding known to occur
Brown Booby [1022]		Breeding known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat
		known to occur within area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Species or species habitat
		known to occur within area
Xenus cinereus		
Terek Sandpiper [59300]		Species or species habitat
		known to occur within area

Fish

Name	Threatened	Type of Presence
Acentronura tentaculata		
Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
Bhanotia fasciolata		
Corrugated Pipefish, Barbed Pipefish [66188]		Species or species habitat may occur within area
<u>Campichthys tricarinatus</u>		
Three-keel Pipefish [66192]		Species or species habitat may occur within area
Choeroichthys brachysoma		
Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<u>Choeroichthys suillus</u>		
Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
Corythoichthys amplexus		
Fijian Banded Pipefish, Brown-banded Pipefish [66199]		Species or species habitat may occur within area
Corythoichthys flavofasciatus		
Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
Corythoichthys haematopterus		
Reef-top Pipefish [66201]		Species or species habitat may occur within area
Corythoichthys intestinalis		
Australian Messmate Pipefish, Banded Pipefish [66202]		Species or species habitat may occur within area
Corythoichthys ocellatus		
Orange-spotted Pipefish, Ocellated Pipefish [66203]		Species or species habitat may occur within area
Corythoichthys schultzi		
Schultz's Pipefish [66205]		Species or species habitat may occur within area
Cosmocampus banneri		
Roughridge Pipefish [66206]		Species or species habitat may occur within area
Cosmocampus maxweberi		
Maxweber's Pipefish [66209]		Species or species habitat may occur within area
Doryrhamphus dactyliophorus		
Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
Doryrhamphus excisus		
Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
Doryrhamphus janssi		
Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
Festucalex cinctus		
Girdled Pipefish [66214]		Species or species habitat may occur within area
Filicampus tigris		
Tiger Pipefish [66217]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Halicampus brocki		
Brock's Pipefish [66219]		Species or species habitat may occur within area
Halicampus dunckeri		
Red-hair Pipefish, Duncker's Pipefish [66220]		Species or species habitat may occur within area
Halicampus grayi		
Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
Halicampus macrorhynchus		
Whiskered Pipefish, Ornate Pipefish [66222]		Species or species habitat may occur within area
Halicampus spinirostris		
Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
Haliichthys taeniophorus		
Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
Hippichthys cyanospilos		
Blue-speckled Pipefish, Blue-spotted Pipefish [66228]		Species or species habitat may occur within area
Hippichthys heptagonus		
Madura Pipefish, Reticulated Freshwater Pipefish [66229]		Species or species habitat may occur within area
Hippichthys parvicarinatus		
Short-keel Pipefish, Short-keeled Pipefish [66230]		Species or species habitat may occur within area
Hippichthys penicillus		
Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
Hippichthys spicifer		
Belly-barred Pipefish, Banded Freshwater Pipefish [66232]		Species or species habitat may occur within area
Hippocampus angustus		
Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus histrix		
Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
Hippocampus kuda		
Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
Hippocampus planifrons		
Flat-face Seahorse [66238]		Species or species habitat may occur within area
Hippocampus spinosissimus		
Hedgehog Seahorse [66239]		Species or species habitat may occur within area
Hippocampus trimaculatus		
Three-spot Seahorse, Low-crowned Seahorse, Flat- faced Seahorse [66720]		Species or species habitat may occur within area
Hippocampus zebra		
Zebra Seahorse [66241]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Micrognathus brevirostris thorntail Pipefish, Thorn-tailed Pipefish [66254]		Species or species habitat may occur within area
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area
Microphis brachyurus Short-tail Pipefish, Short-tailed River Pipefish [66257]		Species or species habitat may occur within area
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
Mammals		
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
Reptiles		
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area
Chalaria mudas	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Congregation or aggregation known to occur within area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area
Enhydrina schistosa Beaked Seasnake [1126]		Species or species habitat may occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area
Hydrophis atriceps Black-headed Seasnake [1101]		Species or species habitat may occur within area
Hydrophis caerulescens Dwarf Seasnake [1103]		Species or species habitat may occur within area
Hydrophis coggeri Slender-necked Seasnake [25925]		Species or species habitat may occur within area
Hydrophis czeblukovi Fine-spined Seasnake [59233]		Species or species habitat may occur within area
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area
Hydrophis gracilis Slender Seasnake [1106]		Species or species habitat may occur within area
Hydrophis inornatus Plain Seasnake [1107]		Species or species habitat may occur within area
Hydrophis mcdowelli null [25926]		Species or species habitat may occur within area
Hydrophis melanosoma Black-banded Robust Seasnake [1109]		Species or species habitat may occur within area
Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat may occur within area
Hydrophis pacificus Large-headed Seasnake, Pacific Seasnake [1112]		Species or species habitat may occur within area
Hydrophis vorisi a seasnake [25927]		Species or species

Name	Threatened	Type of Presence
	THICALORICA	habitat may occur within area
Lapemis hardwickii Spine-bellied Seasnake [1113]		Species or species habitat may occur within area
Laticauda colubrina		
a sea krait [1092]		Species or species habitat may occur within area
<u>Laticauda laticaudata</u>		
a sea krait [1093]		Species or species habitat may occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding known to occur within area
Natator depressus Flotbook Turtle [50257]	Vulnorable	Drooding known to coour
Flatback Turtle [59257] Parahydrophis mertoni	Vulnerable	Breeding known to occur within area
Northern Mangrove Seasnake [1090]		Species or species habitat may occur within area
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area
Whales and other Catacoons		[Decourse Information]
Whales and other Cetaceans Name	Status	[Resource Information]
Mammals	Status	Type of Presence
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
Balaenoptera edeni		Consider on appairs babitat
Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus	Co do o co o d	Charina ar annaine babitat
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Species or species habitat
	vuillerable	likely to occur within area
Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat
Feresa attenuata		may occur within area
Pygmy Killer Whale [61]		Species or species habitat may occur within area
Globicephala macrorhynchus		
Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Grampus griseus Pisso's Dolphin, Grampus [64]		Charles or angeles helitet
Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat
		may occur within area
Kogia simus Dwarf Sperm Whale [58]		Species or species habitat
		may occur within area

Name	Status	Type of Presence
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcaella brevirostris		
Irrawaddy Dolphin [45]		Species or species habitat known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Peponocephala electra		
Melon-headed Whale [47]		Species or species habitat may occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens		
False Killer Whale [48]		Species or species habitat likely to occur within area
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Breeding known to occur within area
Stenella attenuata		
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Stenella coeruleoalba		
Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
Stenella longirostris		
Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
Steno bredanensis		
Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<u>Tursiops aduncus</u>		
Indian Ocean Bottlenose Dolphin, Spotted Bottlenos Dolphin [68418]	se	Species or species habitat likely to occur within area
Tursiops aduncus (Arafura/Timor Sea populations)		
Spotted Bottlenose Dolphin (Arafura/Timor Sea		Species or species habitat
populations) [78900]		known to occur within area
Tursiops truncatus s. str.		
Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris		
Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Name	Label
Arafura	Multiple Use Zone (IUCN VI)
Arafura	Special Purpose Zone (Trawl) (IUCN VI)
Arnhem	Special Purpose Zone (IUCN VI)
Gulf of Carpentaria	National Park Zone (IUCN II)
Gulf of Carpentaria	Special Purpose Zone (Trawl) (IUCN VI)
Joseph Bonaparte Gulf	Multiple Use Zone (IUCN VI)

Name	Label
Joseph Bonaparte Gulf	Special Purpose Zone (IUCN VI)
Limmen	Habitat Protection Zone (IUCN IV)
Oceanic Shoals	Multiple Use Zone (IUCN VI)
Oceanic Shoals	Special Purpose Zone (Trawl) (IUCN VI)
Wessel	Habitat Protection Zone (IUCN IV)
Wessel	Special Purpose Zone (Trawl) (IUCN VI)
West Cape York	Habitat Protection Zone (IUCN IV)
West Cape York	National Park Zone (IUCN II)
West Cape York	Special Purpose Zone (IUCN VI)

Extra Information

Key Ecological Features (Marine)

State and Territory Reserves	[Resource Information]
Name	State
Anindilyakwa	NT
Marthakal	NT

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Plants		
Andropogon gayanus		
Gamba Grass [66895]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]
Name		State
Southern Gulf Aggregation		QLD

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Carbonate bank and terrace system of the Van	North
Gulf of Carpentaria basin	North
Gulf of Carpentaria coastal zone	North
Pinnacles of the Bonaparte Basin	North
Plateaux and saddle north-west of the Wellesley	North
Shelf break and slope of the Arafura Shelf	North
Submerged coral reefs of the Gulf of Carpentaria	North
Tributary Canyons of the Arafura Depression	North

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the gualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

 $-14.758882\ 129.178077, -13.960657\ 128.826514, -13.768665\ 128.606788, -12.484784\ 128.496924, -11.183724\ 127.563087, -10.460737\ 128.233253, -9.746889\ 129.518653, -9.660256\ 130.254737, -9.779371\ 130.935889, -9.280976\ 132.528907, -8.901286\ 133.385841, -9.411062\ 134.858008, -9.129149\ 135.473243, -10.363488\ 138.582374, -11.129831\ 139.395362, -10.190527\ 141.339942, -10.806262\ 141.317969, -10.817053\ 141.922217, -11.10827\ 142.087012, -12.527687\ 141.559669, -13.330764\ 141.515723, -13.960657\ 141.40586, -15.045535\ 141.570655, -15.945419\ 141.317969, -17.22994\ 140.823585, -17.513041\ 140.53794, -17.659661\ 140.032569, -17.429205\ 139.593116, -16.630864\ 139.966651, -16.409675\ 139.812842, -16.177683\ 139.208594, -16.820251\ 138.966895, -15.924291\ 137.165137, -15.575354\ 137.132178, -15.458909\ 136.934424, -15.289418\ 136.11045, -14.822615\ 135.45127, -14.269641\ 135.846778, -14.418655\ 136.97837, -13.608551\ 137.011329, -12.784952\ 136.780616, -12.388227\ 137.055274, -10.957305\ 136.76963, -10.957305\ 136.703712, -11.399198\ 136.407081, -11.679068\ 135.824805, -11.904912\ 135.616065, -11.947909\ 134.473487, -11.679068\ 133.869239, -11.700585\ 133.50669, -11.431505\ 133.528663, -11.442273\ 133.363868, -11.64679\ 133.254005, -11.313028\ 132.979346, -11.04358\ 133.067237, -10.90337\ 132.583839, -11.151389\ 131.221534, -11.3238\ 130.782081, -11.054363\ 130.287696, -11.474575\ 130.111915, -11.765126\ 129.958106, -11.947909\ 130.067969, -11.894162\ 130.760108, -12.119827\ 130.913917, -12.441874\ 130.474464, -12.870649\ 130.100928, -13.939333\ 129.584571, -13.971319\ 129.419776, -14.47185\ 129.28794, -14.631358\ 129.507667, -14.843856\ 129.452735, -14.769505\ 129.178077, -14.758882\ 129.178077$

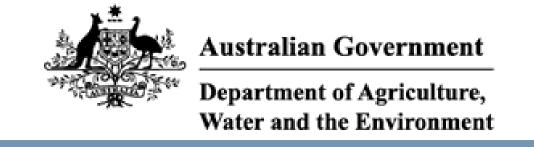
Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Office of Environment and Heritage, New South Wales
- -Department of Environment and Primary Industries, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment, Water and Natural Resources, South Australia
- -Department of Land and Resource Management, Northern Territory
- -Department of Environmental and Heritage Protection, Queensland
- -Department of Parks and Wildlife, Western Australia
- -Environment and Planning Directorate, ACT
- -Birdlife Australia
- -Australian Bird and Bat Banding Scheme
- -Australian National Wildlife Collection
- -Natural history museums of Australia
- -Museum Victoria
- -Australian Museum
- -South Australian Museum
- -Queensland Museum
- -Online Zoological Collections of Australian Museums
- -Queensland Herbarium
- -National Herbarium of NSW
- -Royal Botanic Gardens and National Herbarium of Victoria
- -Tasmanian Herbarium
- -State Herbarium of South Australia
- -Northern Territory Herbarium
- -Western Australian Herbarium
- -Australian National Herbarium, Canberra
- -University of New England
- -Ocean Biogeographic Information System
- -Australian Government, Department of Defence
- Forestry Corporation, NSW
- -Geoscience Australia
- -CSIRO
- -Australian Tropical Herbarium, Cairns
- -eBird Australia
- -Australian Government Australian Antarctic Data Centre
- -Museum and Art Gallery of the Northern Territory
- -Australian Government National Environmental Science Program
- -Australian Institute of Marine Science
- -Reef Life Survey Australia
- -American Museum of Natural History
- -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
- -Tasmanian Museum and Art Gallery, Hobart, Tasmania
- -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 10/05/21 13:07:00

Summary Details

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

Caveat

Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates
Buffer: 1.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	2
National Heritage Places:	5
Wetlands of International Importance:	2
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	70
Listed Migratory Species:	84

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	1
Listed Marine Species:	149
Whales and Other Cetaceans:	34
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	17

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	10
Regional Forest Agreements:	None
Invasive Species:	23
Nationally Important Wetlands:	3
Key Ecological Features (Marine)	5

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Status
Shark Bay, Western Australia	WA	Declared property
The Ningaloo Coast	WA	Declared property
National Heritage Properties		[Resource Information]
Name	State	Status
Natural		
Shark Bay, Western Australia	WA	Listed place
The Ningaloo Coast	WA	Listed place
The West Kimberley	WA	Listed place
Indigenous		
Dampier Archipelago (including Burrup Peninsula)	WA	Listed place
Historic		
Dirk Hartog Landing Site 1616 - Cape Inscription Area	WA	Listed place
Wetlands of International Importance (Ramsar)		[Resource Information]
Name		Proximity
Eighty-mile beach		Within Ramsar site
Ord river floodplain		Within 10km of Ramsar
Commonwealth Marine Area		[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

Name

EEZ and Territorial Sea **Extended Continental Shelf**

Marine Regions [Resource Information]

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

Name

North-west

Curlew Sandpiper [856]

Listed Threatened Ecological Communities

[Resource Information]

Species or species

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula	Endangered	Community likely to occur within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anous tenuirostris melanops		
Australian Lesser Noddy [26000]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		

Critically Endangered

Name	Status	Type of Presence
	Otatus	habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Diomedea amsterdamensis		
Amsterdam Albatross [64405]	Endangered	Species or species habitat likely to occur within area
<u>Diomedea exulans</u>		
Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Erythrotriorchis radiatus		
Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Erythrura gouldiae		
Gouldian Finch [413]	Endangered	Species or species habitat known to occur within area
Falco hypoleucos		
Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area
Falcunculus frontatus whitei		
Crested Shrike-tit (northern), Northern Shrike-tit [26013]	Vulnerable	Species or species habitat likely to occur within area
Geophaps smithii blaauwi		
Partridge Pigeon (western) [66501]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata		
Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
<u>Limosa lapponica baueri</u>		
Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-	Critically Endangered	Species or species habitat
tailed Godwit [86432]		known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
		•
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Malurus leucopterus leucopterus White-winged Fairy-wren (Dirk Hartog Island), Dirk	Vulnerable	Species or species habitat
Hartog Black-and-White Fairy-wren [26004]		likely to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Papasula abbotti		
Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area
Pezoporus occidentalis		
Night Parrot [59350]	Endangered	Species or species habitat may occur within

Name	Status	Type of Presence
		area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat likely to occur within area
Mammals		
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Migration route known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Bettongia lesueur lesueur Burrowing Bettong (Shark Bay), Boodie [66659]	Vulnerable	Species or species habitat likely to occur within area
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat likely to occur within area
Conilurus penicillatus Brush-tailed Rabbit-rat, Brush-tailed Tree-rat, Pakooma [132]	Vulnerable	Species or species habitat may occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat

Name	Status	Type of Presence
Isoodon auratus auratus Golden Bandicoot (mainland) [66665]	Vulnerable	Species or species habitat likely to occur within area
Lagostrophus fasciatus fasciatus Banded Hare-wallaby, Merrnine, Marnine, Munning [66664]	Vulnerable	Translocated population known to occur within area
Leporillus conditor Wopilkara, Greater Stick-nest Rat [137]	Vulnerable	Translocated population known to occur within area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat known to occur within area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38] Neophoca cinerea	Vulnerable	Breeding known to occur within area
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
Perameles bougainville bougainville Western Barred Bandicoot (Shark Bay) [66631]	Endangered	Translocated population known to occur within area
Petrogale concinna monastria Nabarlek (Kimberley) [87607]	Endangered	Species or species habitat known to occur within area
Phascogale tapoatafa kimberleyensis Kimberley brush-tailed phascogale, Brush-tailed Phascogale (Kimberley) [88453]	Vulnerable	Species or species habitat likely to occur within area
Rhinonicteris aurantia (Pilbara form) Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat may occur within area
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheathtail Bat [66889]	Vulnerable	Species or species habitat likely to occur within area
Xeromys myoides Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Egernia stokesii badia Western Spiny-tailed Skink, Baudin Island Spiny-tailed Skink [64483]	Endangered	Species or species habitat likely to occur

Name	Status	Type of Presence
1 tarrio	Clarao	within area
Eretmochelys imbricata		Within area
Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur
Trawksbiii Turtic [1700]	Valificiable	within area
<u>Lepidochelys olivacea</u>		Within area
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Foraging, feeding or related
enverticity rather, racine radies rand [1767]		behaviour known to occur
		within area
<u>Lerista nevinae</u>		
Nevin's Slider [85296]	Endangered	Species or species habitat
		known to occur within area
<u>Liasis olivaceus barroni</u>		
Olive Python (Pilbara subspecies) [66699]	Vulnerable	Species or species habitat
		likely to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Breeding known to occur
rational ratio [00207]	Valificiable	within area
Sharks		
Carcharias taurus (west coast population)		
Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat
(known to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat
		known to occur within area
Glyphis garricki Northern Diver Charle Nove Cuinea Diver Charle	Endongorod	Charles or angeles habitat
Northern River Shark, New Guinea River Shark [82454]	Endangered	Species or species habitat known to occur within area
[02434]		Known to occur within area
Pristis clavata		
Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur
		within area
Pristis pristis		
Freshwater Sawfish, Largetooth Sawfish, River	Vulnerable	Species or species habitat
Sawfish, Leichhardt's Sawfish, Northern Sawfish		known to occur within area
[60756]		
Pristis zijsron		
Green Sawfish, Dindagubba, Narrowsnout Sawfish	Vulnerable	Breeding known to occur
[68442]		within area
Rhincodon typus Whole Shark [66690]	Vulnerable	Foreging fooding or related
Whale Shark [66680]	vuirierable	Foraging, feeding or related
		hehaviour known to occur
		behaviour known to occur within area
		behaviour known to occur within area
Listed Migratory Species		within area
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* Species is listed under a different scientific name on Name Migratory Marine Birds Anous stolidus Common Noddy [825] Apus pacificus Fork-tailed Swift [678] Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404] Ardenna pacifica Wedge-tailed Shearwater [84292] Calonectris leucomelas		[Resource Information] ened Species list. Type of Presence Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Breeding known to occur within area
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* Species is listed under a different scientific name on Name Migratory Marine Birds Anous stolidus Common Noddy [825] Apus pacificus Fork-tailed Swift [678] Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404] Ardenna pacifica Wedge-tailed Shearwater [84292] Calonectris leucomelas Streaked Shearwater [1077]	Threatened	I Resource Information I Rened Species list. Type of Presence Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Breeding known to occur within area Species or species habitat known to occur within area
* Species is listed under a different scientific name on Name Migratory Marine Birds Anous stolidus Common Noddy [825] Apus pacificus Fork-tailed Swift [678] Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404] Ardenna pacifica Wedge-tailed Shearwater [84292] Calonectris leucomelas Streaked Shearwater [1077]		[Resource Information] ened Species list. Type of Presence Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Breeding known to occur within area Species or species habitat

Name	Threatened	Type of Presence
Diomedea exulans	Till Gaterioa	habitat likely to occur within area
Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Foraging, feeding or related behaviour likely to occur within area
Sterna dougallii Roseate Tern [817]		Breeding likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Sula leucogaster Brown Booby [1022]		Breeding known to occur within area
Sula sula Red-footed Booby [1023]		Breeding known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Balaenoptera bonaerensis		71
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur
Balaenoptera edeni Bryde's Whale [35]		within area Species or species habitat likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Migration route known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Dugong dugon Dugong [28]		Breeding known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766] Isurus oxyrinchus	Vulnerable	Breeding known to occur within area
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Isurus paucus Longfin Mako [82947]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Foraging, feeding or related behaviour known to occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat known to occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Breeding known to occur

Name	Threatened	Type of Presence
		within area
Natator depressus	\/la a va b la	Drag diag kanaya ta angur
Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Orcaella heinsohni		
Australian Snubfin Dolphin [81322]		Species or species habitat
		known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat
		may occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat
		may occur within area
Pristis clavata		
Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Breeding known to occur
Pristis pristis		within area
Freshwater Sawfish, Largetooth Sawfish, River	Vulnerable	Species or species habitat
Sawfish, Leichhardt's Sawfish, Northern Sawfish		known to occur within area
[60756] Pristis zijsron		
Green Sawfish, Dindagubba, Narrowsnout Sawfish	Vulnerable	Breeding known to occur
[68442]		within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Foraging, feeding or related
	· amerasio	behaviour known to occur
Souce chinonois		within area
Sousa chinensis Indo-Pacific Humpback Dolphin [50]		Breeding known to occur
		within area
Tursiops aduncus (Arafura/Timor Sea populations)		On a sing an angeling babitat
Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
,		
Migratory Terrestrial Species Cecropis daurica		
Red-rumped Swallow [80610]		Species or species habitat
		may occur within area
<u>Cuculus optatus</u>		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat
		may occur within area
Hirundo rustica		
Barn Swallow [662]		Species or species habitat
		may occur within area
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat
		may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat
		likely to occur within area
Migratory Wetlands Species		
Acrocephalus orientalis Oriental Bood Warbler [50570]		Charles at an asias balling
Oriental Reed-Warbler [59570]		Species or species habitat may occur within area
A - ddd - lag ag 1		•
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat
σοιπποπ σαπαριρεί [σσσσσ]		known to occur within area
A way a via inta way a		
Arenaria interpres Puddy Turnstone (972)		
KUOOV TUHISIONE 10771		Species or species habitat
Ruddy Turnstone [872]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur

Name	Threatened	Type of Presence
Tringa nebularia		within area
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Xenus cinereus		

Species or species habitat known to occur within area

Species or species habitat known to occur within area

Species or species

Terek Sandpiper [59300]

Sharp-tailed Sandpiper [874]

Calidris alba

Sanderling [875]

Commonwealth Heritage Places			[Resource Information]
Name		State	Status
Natural			
Ningaloo Marine Area - Commonwealth Waters		WA	Listed place
Listed Marine Species			[Resource Information]
* Species is listed under a different scientific name or	n the EPBC Act	t - Threaten	ed Species list.
Name	Threatened	d	Type of Presence
Birds			
Acrocephalus orientalis			
Oriental Reed-Warbler [59570]			Species or species habitat may occur within area
Actitis hypoleucos			
Common Sandpiper [59309]			Species or species habitat known to occur within area
Anous stolidus			
Common Noddy [825]			Species or species habitat likely to occur within area
Anous tenuirostris melanops			
Australian Lesser Noddy [26000]	Vulnerable		Foraging, feeding or related behaviour known to occur within area
Anseranas semipalmata			On a sing on an acing habitat
Magpie Goose [978]			Species or species habitat may occur within area
Apus pacificus			
Fork-tailed Swift [678]			Species or species habitat likely to occur within area
Ardea ibis			
Cattle Egret [59542]			Species or species habitat may occur within area
Arenaria interpres			
Ruddy Turnstone [872]			Species or species habitat known to occur within area
Calidris acuminata			

Name	Threatened	Type of Presence
		habitat known to occur
		within area
Calidris canutus	-	
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
		Known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat
		known to occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat
		known to occur within area
<u>Calidris ruficollis</u>		
Red-necked Stint [860]		Species or species habitat
		known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Species or species habitat
		known to occur within area
Calonectris leucomelas Ctrooked Chapmyster [4077]		Charles ar angeles habitat
Streaked Shearwater [1077]		Species or species habitat known to occur within area
		Known to occur within area
Catharacta skua		
Great Skua [59472]		Species or species habitat
		may occur within area
Charadrius Ioschanaultii		
<u>Charadrius leschenaultii</u> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat
Oreater Sand Flover, Large Sand Flover [of 7]	Vullierable	known to occur within area
Charadrius ruficapillus		
Red-capped Plover [881]		Species or species habitat
		known to occur within area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat
		may occur within area
Oh mara a sa		
Chrysococcyx osculans Plack pared Cuckes [705]		Species or species habitat
Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
		intoly to occur within area
Diomedea amsterdamensis		
Amsterdam Albatross [64405]	Endangered	Species or species habitat
		likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Species or species habitat
		may occur within area
Fregata ariel		On saise an anasias babitat
Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
		Known to occur within area
Fregata minor		
Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat
		likely to occur within area
Glareola maldivarum		
Oriental Pratincole [840]		Species or species habitat
Offerital Frauncole [040]		may occur within area
		,
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat
		known to occur within area
Heteroscelus brevipes		
Grey-tailed Tattler [59311]		Species or species habitat
2.5, tanoa ramor [000 rij		known to occur

Name	Threatened	Type of Presence
		within area
Himantopus himantopus		
Pied Stilt, Black-winged Stilt [870]		Species or species habitat
riod Stitt, Black Winged Stitt [676]		known to occur within area
Hirundo daurica		
Red-rumped Swallow [59480]		Species or species habitat
		may occur within area
<u>Hirundo rustica</u>		
Barn Swallow [662]		Species or species habitat
		may occur within area
Larus novaehollandiae		
Silver Gull [810]		Breeding known to occur
		within area
<u>Larus pacificus</u>		www.mr area
Pacific Gull [811]		Foraging, feeding or related
		behaviour known to occur
		within area
<u>Limosa lapponica</u>		
Bar-tailed Godwit [844]		Species or species habitat
		known to occur within area
<u>Limosa limosa</u>		
Black-tailed Godwit [845]		Species or species habitat
		known to occur within area
Macronectes giganteus		
	Endangered	Species or species habitat
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
		may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat
		may occur within area
		•
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat
		may occur within area
Matacilla cinarea		
Motacilla cinerea		Consider on annual as habitat
Grey Wagtail [642]		Species or species habitat
		may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat
· enew · ragian [e · ·]		likely to occur within area
		•
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat
		known to occur within area
Numenius phaeopus		
Whimbrel [849]		Species or species habitat
		known to occur within area
Pandion haliaetus		
Osprey [952]		Breeding known to occur
		within area
Papasula abbotti		 -
Abbott's Booby [59297]	Endangered	Species or species habitat
	5	may occur within area
Phaethon lepturus		
White-tailed Tropicbird [1014]		Foraging, feeding or related
		behaviour likely to occur
Direciplia agreeta rala		within area
Pluvialis squatarola Crov Plover 19651		Charles an anasis at all the
Grey Plover [865]		Species or species habitat
		known to occur within area
Pterodroma macroptera		
Great-winged Petrel [1035]		Foraging, feeding or

Name	Threatened	Type of Presence
Pterodroma mollis		related behaviour known to occur within area
Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Species or species habitat likely to occur within area
Puffinus pacificus Wedge-tailed Shearwater [1027]		Breeding known to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Sterna albifrons Little Tern [813]		Breeding known to occur within area
Sterna anaethetus Bridled Tern [814]		Breeding known to occur within area
Sterna bengalensis Lesser Crested Tern [815] Sterna bergii		Breeding known to occur within area
Crested Tern [816] Sterna caspia		Breeding known to occur within area
Caspian Tern [59467] Sterna dougallii		Breeding known to occur within area
Roseate Tern [817] Sterna fuscata		Breeding likely to occur within area
Sooty Tern [794] Sterna nereis		Breeding known to occur within area
Fairy Tern [796] Sula leucogaster		Breeding known to occur within area
Brown Booby [1022] Sula sula		Breeding known to occur within area
Red-footed Booby [1023] <u>Thalassarche carteri</u>		Breeding known to occur within area
Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area

Name	Threatened	Type of Presence
	THEALENEU	Type of Flesence
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur
Tringa glareola		within area
Wood Sandpiper [829]		Species or species habitat known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Xenus cinereus		
Terek Sandpiper [59300]		Species or species habitat known to occur within area
Fish		
Acentronura larsonae		
Helen's Pygmy Pipehorse [66186]		Species or species habitat may occur within area
Bhanotia fasciolata Corrugated Pipefish, Barbed Pipefish [66188]		Species or species habitat may occur within area
Bulbonaricus brauni		
Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
Campichthys galei		
Gale's Pipefish [66191]		Species or species habitat may occur within area
Campichthys tricarinatus		
Three-keel Pipefish [66192]		Species or species habitat may occur within area
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
Choeroichthys latispinosus		
Muiron Island Pipefish [66196]		Species or species habitat may occur within area
<u>Choeroichthys suillus</u>		
Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
Corythoichthys amplexus Fijian Banded Pipefish, Brown-banded Pipefish [66199]		Species or species habitat may occur within area
Corythoichthys flavofasciatus		
Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
Corythoichthys intestinalis Australian Messmate Pipefish, Banded Pipefish [66202]		Species or species habitat may occur within area
O a morth a ballotte car and the termination of the		
Corythoichthys schultzi Schultz's Pipefish [66205]		Species or species habitat may occur within area
Cosmocampus banneri Roughridge Pipefish [66206]		Species or species habitat may occur within area
Doryrhamphus dactyliophorus		
Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
<u>Doryrhamphus excisus</u>		
Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
Doryrhamphus janssi		
Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
Doryrhamphus multiannulatus		
Many-banded Pipefish [66717]		Species or species habitat may occur within area
Doryrhamphus negrosensis		
Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
Festucalex scalaris		
Ladder Pipefish [66216]		Species or species habitat may occur within area
Filicampus tigris		
Tiger Pipefish [66217]		Species or species habitat may occur within area
Halicampus brocki		
Brock's Pipefish [66219]		Species or species habitat may occur within area
Halicampus dunckeri		
Red-hair Pipefish, Duncker's Pipefish [66220]		Species or species habitat may occur within area
Halicampus grayi		
Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
Halicampus nitidus		
Glittering Pipefish [66224]		Species or species habitat may occur within area
Halicampus spinirostris		
Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
Haliichthys taeniophorus		
Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
Hippichthys penicillus		
Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
Hippocampus angustus		
Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus histrix		
Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
Hippocampus kuda		
Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
Hippocampus planifrons		
Flat-face Seahorse [66238]		Species or species habitat may occur within area
Hippocampus spinosissimus		
Hedgehog Seahorse [66239]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
<u>Lissocampus fatiloquus</u> Prophet's Pipefish [66250]		Species or species habitat may occur within area
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Phoxocampus belcheri Black Rock Pipefish [66719]		Species or species habitat may occur within area
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
Mammals		
Dugong dugon Dugong [28]		Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
Reptiles		
Acalyptophis peronii		
Horned Seasnake [1114]		Species or species habitat may occur within area
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Aipysurus foliosquama		
Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area
Aipysurus laevis		
Olive Seasnake [1120]		Species or species habitat may occur within area
Aipysurus pooleorum		
Shark Bay Seasnake [66061]		Species or species habitat may occur within area
Aipysurus tenuis		
Brown-lined Seasnake [1121]		Species or species habitat may occur within area
Astrotia stokesii		
Stokes' Seasnake [1122]		Species or species habitat may occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
Chelonia mydas Croop Turtlo [1765]	Vulnerable	Prooding known to occur
Green Turtle [1765] Crocodylus johnstoni	vuirierable	Breeding known to occur within area
Freshwater Crocodile, Johnston's Crocodile,		Species or species habitat
Johnstone's Crocodile [1773]		may occur within area
<u>Crocodylus porosus</u>		
Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Disteira kingii		
Spectacled Seasnake [1123]		Species or species habitat may occur within area
Disteira major		
Olive-headed Seasnake [1124]		Species or species habitat may occur within area
Emydocephalus annulatus		
Turtle-headed Seasnake [1125]		Species or species habitat may occur within area
Enhydrina schistosa		
Beaked Seasnake [1126]		Species or species habitat may occur within area
Ephalophis greyi		
North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Hydrelaps darwiniensis		
Black-ringed Seasnake [1100]		Species or species habitat may occur within area
Hydrophis atriceps		
Black-headed Seasnake [1101]		Species or species habitat may occur within area
Hydrophis coggeri		
Slender-necked Seasnake [25925]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hydrophis czeblukovi		•
Fine-spined Seasnake [59233]		Species or species habitat
Time opinion constraint [66266]		may occur within area
		may cood. m.m. area
<u>Hydrophis elegans</u>		
Elegant Seasnake [1104]		Species or species habitat
		may occur within area
		•
<u>Hydrophis inornatus</u>		
Plain Seasnake [1107]		Species or species habitat
		may occur within area
<u>Hydrophis mcdowelli</u>		
null [25926]		Species or species habitat
		may occur within area
Hydrophis ornatus		
Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat
		may occur within area
Lanamia hardwiekii		
Lapemis hardwickii		
Spine-bellied Seasnake [1113]		Species or species habitat
		may occur within area
<u>Lepidochelys olivacea</u>		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Foraging, feeding or related
Onvertidity furthe, Facility furthe [1707]	Litaarigerea	behaviour known to occur
		within area
Natator depressus		within area
Flatback Turtle [59257]	Vulnerable	Breeding known to occur
		within area
Pelamis platurus		
Yellow-bellied Seasnake [1091]		Species or species habitat
		may occur within area
		•
Whales and other Catacoons		Decoured Intermetion
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Name Mammals	Status	
Name Mammals Balaenoptera acutorostrata	Status	Type of Presence
Name Mammals	Status	Type of Presence Species or species habitat
Name Mammals Balaenoptera acutorostrata	Status	Type of Presence
Name Mammals Balaenoptera acutorostrata Minke Whale [33]	Status	Type of Presence Species or species habitat
Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis	Status	Type of Presence Species or species habitat may occur within area
Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale	Status	Species or species habitat may occur within area Species or species habitat
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Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]	Status	Species or species habitat may occur within area Species or species habitat
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Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]	Status	Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related
Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis		Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34]		Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related
Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34] Balaenoptera edeni		Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur within area
Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34]		Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur
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Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34] Balaenoptera edeni		Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur within area Species or species habitat
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Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36]	Vulnerable	Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur within area Species or species habitat likely to occur within area Migration route known to
Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Balaenoptera physalus	Vulnerable Endangered	Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Migration route known to occur within area Foraging, feeding or related behaviour likely to occur
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Name Mammals Balaenoptera acutorostrata Minke Whale [33] Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812] Balaenoptera borealis Sei Whale [34] Balaenoptera edeni Bryde's Whale [35] Balaenoptera musculus Blue Whale [36] Balaenoptera physalus Fin Whale [37] Delphinus delphis	Vulnerable Endangered Vulnerable	Species or species habitat may occur within area Species or species habitat likely to occur within area Foraging, feeding or related behaviour likely to occur within area Species or species habitat likely to occur within area Migration route known to occur within area Foraging, feeding or related behaviour likely to occur within area
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Name	Status	Type of Presence
		area
Globicephala macrorhynchus		
Short-finned Pilot Whale [62]		Species or species habitat
		may occur within area
Globicephala melas		
Long-finned Pilot Whale [59282]		Species or species habitat
		may occur within area
<u>Grampus griseus</u>		
Risso's Dolphin, Grampus [64]		Species or species habitat
racco o Bolpinni, Grampac [o i]		may occur within area
		•
Indopacetus pacificus		On saine an en saine habitet
Longman's Beaked Whale [72]		Species or species habitat may occur within area
		may occar within area
Kogia breviceps		
Pygmy Sperm Whale [57]		Species or species habitat
		may occur within area
Kogia simus		
Dwarf Sperm Whale [58]		Species or species habitat
		may occur within area
Laganadalphic hasai		
<u>Lagenodelphis hosei</u> Fraser's Dolphin, Sarawak Dolphin [41]		Species or species habitat
r raser s Bolpriiri, Carawak Bolpriiri [41]		may occur within area
		•
Megaptera novaeangliae	\/ I	
Humpback Whale [38]	Vulnerable	Breeding known to occur within area
Mesoplodon densirostris		within area
Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat
		may occur within area
Mesoplodon ginkgodens		
Gingko-toothed Beaked Whale, Gingko-toothed		Species or species habitat
Whale, Gingko Beaked Whale [59564]		may occur within area
Mesoplodon grayi Gray's Booked Whale, Scampardown Whale [75]		Species or species habitat
Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Orcaella brevirostris		
Irrawaddy Dolphin [45]		Species or species habitat known to occur within area
		Known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat
		may occur within area
Peponocephala electra		
Melon-headed Whale [47]		Species or species habitat
		may occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat
		may occur within area
Decuderes assestatores		
Pseudorca crassidens Falsa Killer Whala [49]		Charles ar anadica habitat
False Killer Whale [48]		Species or species habitat likely to occur within area
		15 555ai Walii alba
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Breeding known to occur
Stenella attenuata		within area
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat
promote the many transfer on the most polynomical property of		may occur within area
Otomollo os amula a sila a		
Striped Dolphin, Furbrosyne Dolphin [52]		Species or species
Striped Dolphin, Euphrosyne Dolphin [52]		Species or species

Name	Status	Type of Presence
		habitat may occur within area
Stenella longirostris		
Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
Steno bredanensis		
Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<u>Tursiops aduncus</u>		
Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops aduncus (Arafura/Timor Sea populations)		
Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
Tursiops truncatus s. str.		
Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris		
Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information
Name	Label
Abrolhos	Habitat Protection Zone (IUCN IV)
Abrolhos	Multiple Use Zone (IUCN VI)
Abrolhos	Special Purpose Zone (IUCN VI)
Argo-Rowley Terrace	Multiple Use Zone (IUCN VI)
Argo-Rowley Terrace	National Park Zone (IUCN II)
Dampier	Habitat Protection Zone (IUCN IV)
Dampier	Multiple Use Zone (IUCN VI)
Eighty Mile Beach	Multiple Use Zone (IUCN VI)
Gascoyne	Habitat Protection Zone (IUCN IV)
Gascoyne	Multiple Use Zone (IUCN VI)
Gascoyne	National Park Zone (IUCN II)
Joseph Bonaparte Gulf	Multiple Use Zone (IUCN VI)
Kimberley	Multiple Use Zone (IUCN VI)
Ningaloo	Recreational Use Zone (IUCN IV)
Oceanic Shoals	Multiple Use Zone (IUCN VI)
Roebuck	Multiple Use Zone (IUCN VI)
Shark Bay	Multiple Use Zone (IUCN VI)

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Bardi Jawi	WA
Dambimangari	WA
Dambimangari	WA
Dirk Hartog Island	WA
Faure Island	WA
Little Rocky Island	WA
Tent Island	WA
Unnamed WA36913	WA
Unnamed WA36915	WA
Uunguu	WA

Ir	างล	asive	Species								[<u>Re</u>	sour	ce I	<u>nforma</u>	<u>tion</u>
١.٨	,		4 11	4.1	~~	•	4.	 	(\A/ \LO\	141	4.1				

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat may occur within area
Mammals		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Equus asinus Donkey, Ass [4]		Species or species habitat likely to occur within area
Equus caballus Horse [5]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Andropogon gayanus Gamba Grass [66895]		Species or species habitat

Cenchrus ciliaris

Buffel-grass, Black Buffel-grass [20213]

likely to occur within area

Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
Jatropha gossypifolia		arca
Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [7507] Lantana camara		Species or species habitat likely to occur within area
Lantana, Common Lantana, Kamara Lantana, Largeleaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Lycium ferocissimum		Species or species habitat may occur within area
African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Opuntia spp.		
Prickly Pears [82753]		Species or species habitat likely to occur within area
Parkinsonia aculeata		
Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
Tamarix aphylla		
Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area
Reptiles Ramphotyphlops braminus		
Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]

Nationally Important Wetlands	[Resource Information]
Name	State
Exmouth Gulf East	WA
Hamelin Pool	WA
Shark Bay East	WA

Key Ecological Features (Marine) [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Carbonate bank and terrace system of the Sahul	North-west
Commonwealth waters adjacent to Ningaloo Reef	North-west
Continental Slope Demersal Fish Communities	North-west
Pinnacles of the Bonaparte Basin	North-west
Wallaby Saddle	North-west

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the gualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-11.269933 127.440005,-12.516962 128.274966,-13.416271 128.362857,-13.854015 128.406802,-14.652617 128.879214,-14.833236 128.956119,-14.737633 128.439761,-14.280288 127.769595,-13.864681 127.385074,-13.864681 127.143375,-13.67261 126.934634,-13.875347 126.418277,-13.843348 126.242496,-13.896678 125.967837,-14.077907 125.934878,-14.34416 125.836001,-14.216398 125.649234,-14.461212 125.099918,-14.641988 125.044986,-14.88633 125.143863,-14.971254 124.990054,-15.257624 124.649478,-15.268222 124.231998,-15.416549 124.16608,-15.490673 124.407779,-16.293713 124.286929,-16.072142 123.616763,-16.219884 123.429996,-16.567693 123.408023,-16.778181 123.561832,-16.914874 123.704654,-17.114478 123.397037,-16.546631 123.034488,-16.251529 123.078433,-16.704537 122.540103,-17.135476 122.144595,-17.502564 122.056705,-18.244939 122.078677,-18.432649 121.738101,-18.76585 121.551334,-19.45099 121.100894,-19.999097 119.584781,-19.906155 119.101382,-20.236365 118.727847,-20.308506 118.112613,-20.648142 117.321597,-20.555589 116.948062,-20.360014 117.01398.-20.318809 116.816226.-20.802273 116.26691.-20.822812 116.113101.-21.468342 115.377017.-21.754335 114.629947.-22.344932 114.355289,-22.202601 114.146548,-21.67268 114.245425,-21.886924 113.849918,-22.669716 113.586246,-23.003846 113.751041,-23.458145 113.696109,-24.031352 113.300601,-24.51208 113.311587,-25.893759 114.135562,-26.258875 114.003726,-25.953045 113.926822,-25.398562 113.45441,-25.686027 113.366519,-26.249022 113.641177,-26.229314 113.509341,-25.378711 112.949039,-25.557248 112.839175,-26.485263 113.256656,-27.161748 113.816959,-27.571531 114.036685,-27.552052 113.113834,-27.151972 112.981998,-25.368784 112.278873,-26.022173 110.389224,-25.893759 110.323306,-25.804776 109.872867,-25.537424 109.587222,-25.626608 109.23566,-24.582033 109.389468,-23.306884 109.872867,-22.882439 110.026675,-21.621623 110.169498,-20.945986 110.510074,-20.030065 110.949527,-19.025706 112.092105,-17.816621 112.981998,-17.271909 113.773013,-16.935895 115.442935,-15.681156 116.014224,-14.790751 116.89313,-14.056594 118.266421,-13.266614 118.42023,-13.949995 120.046207,-13.234532 121.825992,-12.838516 122.529117,-12.15205 122.51813,-11.883411 122.726871,-11.786636 123.067447,-11.926411 123.440982,-12.248693 123.583804,-11.63603 125.737125,-11.334573 126.539126,-11.280707 127.440005,-11.269933 127.440005

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Office of Environment and Heritage, New South Wales
- -Department of Environment and Primary Industries, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment, Water and Natural Resources, South Australia
- -Department of Land and Resource Management, Northern Territory
- -Department of Environmental and Heritage Protection, Queensland
- -Department of Parks and Wildlife, Western Australia
- -Environment and Planning Directorate, ACT
- -Birdlife Australia
- -Australian Bird and Bat Banding Scheme
- -Australian National Wildlife Collection
- -Natural history museums of Australia
- -Museum Victoria
- -Australian Museum
- -South Australian Museum
- -Queensland Museum
- -Online Zoological Collections of Australian Museums
- -Queensland Herbarium
- -National Herbarium of NSW
- -Royal Botanic Gardens and National Herbarium of Victoria
- -Tasmanian Herbarium
- -State Herbarium of South Australia
- -Northern Territory Herbarium
- -Western Australian Herbarium
- -Australian National Herbarium, Canberra
- -University of New England
- -Ocean Biogeographic Information System
- -Australian Government, Department of Defence
- Forestry Corporation, NSW
- -Geoscience Australia
- -CSIRO
- -Australian Tropical Herbarium, Cairns
- -eBird Australia
- -Australian Government Australian Antarctic Data Centre
- -Museum and Art Gallery of the Northern Territory
- -Australian Government National Environmental Science Program
- -Australian Institute of Marine Science
- -Reef Life Survey Australia
- -American Museum of Natural History
- -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
- -Tasmanian Museum and Art Gallery, Hobart, Tasmania
- -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 10/05/21 12:51:00

Summary Details

Matters of NES

Other Matters Protected by the EPBC Act

Extra Information

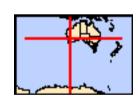
Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates
Buffer: 1.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	65
Listed Migratory Species:	67

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	2
Commonwealth Heritage Places:	1
Listed Marine Species:	106
Whales and Other Cetaceans:	40
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	21

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	10
Regional Forest Agreements:	None
Invasive Species:	42
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	8

Details

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Indigenous		
Cheetup Rock Shelter	WA	Listed place
Wetlands of International Importance (Ramsar)		[Resource Information]
Name		Proximity
Becher point wetlands		Within 10km of Ramsar
Forrestdale and thomsons lakes		Within 10km of Ramsar
Peel-yalgorup system		Within 10km of Ramsar
<u>Vasse-wonnerup system</u>		Within 10km of Ramsar

Commonwealth Marine Area

[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

Name

EEZ and Territorial Sea

Extended Continental Shelf

Marine Regions [Resource Information]

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

Name

South-west

Listed Threatened Ecological Communities

[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community may occur within area
Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia	Endangered	Community may occur within area
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological	Critically Endangered	Community likely to occur within area
community		
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anous tenuirostris melanops		
Australian Lesser Noddy [26000]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Atrichornis clamosus		
Noisy Scrub-bird, Tjimiluk [654]	Endangered	Species or species habitat known to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
Cereopsis novaehollandiae grisea Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978] Charadrius leschenaultii	Vulnerable	Breeding known to occur within area
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<u>Diomedea dabbenena</u> Tristan Albatross [66471]	Endangered	Species or species habitat likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel	Endangered	Species or species

Name	Status	Type of Presence
[1060]	Clarato	habitat may occur within
		area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat
		may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat
Lastern Curiew, Far Lastern Curiew [647]	Chilically Endangered	likely to occur within area
		intoly to occur within area
Pachyptila turtur subantarctica		
Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat
		known to occur within area
Dozonorus floviventria		
Pezoporus flaviventris Western Ground Parret Kyloring [84650]	Critically Endangered	Species or species habitat
Western Ground Parrot, Kyloring [84650]	Critically Endangered	Species or species habitat likely to occur within area
		intoly to occur within area
Phoebetria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat
		likely to occur within area
Dtorodromo mollio		
Pterodroma mollis Soft-plumaged Petrol [1036]	Vulnerable	Forgaina fooding or related
Soft-plumaged Petrel [1036]	vuirierable	Foraging, feeding or related behaviour likely to occur
		within area
Rostratula australis		Within area
Australian Painted Snipe [77037]	Endangered	Species or species habitat
		known to occur within area
Otamoula manda manda		
Sternula nereis nereis Australian Fair (1990-19)	\/ln analala	Fananian fandian ar related
Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur
		within area
Thalassarche carteri		Within area
Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related
		behaviour may occur within
-		area
Thalassarche cauta	En de a sere d	Fanania a faradia a sa salata d
Shy Albatross [89224]	Endangered	Foraging, feeding or related
		behaviour likely to occur within area
Thalassarche chrysostoma		Within area
Grey-headed Albatross [66491]	Endangered	Species or species habitat
		may occur within area
The lease and a linear stide		
Thalassarche impavida Comphell Albetrose, Comphell Black browned Albetrose	\/lm.a.rah.la	Chasias ar anasias habitat
Campbell Albatross, Campbell Black-browed Albatross [64459]	vuinerable	Species or species habitat may occur within area
		may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat
		may occur within area
The lease and a stock!		
Thalassarche steadi	\/ln a na la la	Faracina faadina or ralatad
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur
		within area
Mammals		
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
Ralagnontora musculus		within area
Balaenoptera musculus Blue Whale [36]	Endangered	Migration route known to
Blue Whale [36]	Endangered	Migration route known to occur within area
Balaenoptera physalus		Joodi Willin aloa
Fin Whale [37]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
		within area
Bettongia penicillata ogilbyi		
Woylie [66844]	Endangered	Species or species habitat
		may occur within

Name	Status	Type of Presence
		area
<u>Dasyurus geoffroii</u> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Breeding known to occur within area
Parantechinus apicalis Dibbler [313]	Endangered	Species or species habitat known to occur within area
Petrogale lateralis hacketti Recherche Rock-wallaby [66849]	Vulnerable	Species or species habitat known to occur within area
Potorous gilbertii Gilbert's Potoroo, Ngilkat [66642]	Critically Endangered	Translocated population known to occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area
Plants		
Caladenia elegans Elegant Spider-orchid [56775]	Endangered	Species or species habitat may occur within area
Caladenia granitora [65292]	Endangered	Species or species habitat may occur within area
Caladenia hoffmanii Hoffman's Spider-orchid [56719]	Endangered	Species or species habitat may occur within area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
<u>Drummondita ericoides</u> Morseby Range Drummondita [9193]	Endangered	Species or species habitat likely to occur within area
Eucalyptus insularis Twin Peak Island Mallee [3057]	Endangered	Species or species habitat likely to occur within area
Isopogon uncinatus Albany Cone Bush, Hook-leaf Isopogon [20871]	Endangered	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta		
Loggerhead Turtle [1763] Chelonia mydas	Endangered	Foraging, feeding or related behaviour known to occur within area
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Name	Status	Type of Presence
<u>Dermochelys coriacea</u>		•
Leatherback Turtle, Leathery Turtle, Luth [1768] Egernia stokesii badia	Endangered	Foraging, feeding or related behaviour known to occur within area
Western Spiny-tailed Skink, Baudin Island Spiny-tailed Skink [64483]	Endangered	Species or species habitat may occur within area
<u>Liopholis pulchra longicauda</u> Jurien Bay Skink, Jurien Bay Rock-skink [83162]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat known to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on t	he EPBC Act - Threatened	Species list.
Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404] Ardenna grisea		Breeding known to occur within area
Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna pacifica Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
<u>Diomedea amsterdamensis</u> Amsterdam Albatross [64405]	Endangered	Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<u>Diomedea dabbenena</u> Tristan Albatross [66471]	Endangered	Species or species habitat likely to occur within area
<u>Diomedea epomophora</u> Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Name	Threatened	Type of Presence
<u>Diomedea exulans</u>		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Breeding known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sterna dougallii Roseate Tern [817]		Breeding known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		may cood mam area
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		Within area
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Balaenoptera musculus Blue Whale [36]	Endangered	Migration route known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Chalania mudaa	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Isurus paucus Longfin Mako [82947]		Species or species habitat likely to occur within area
<u>Lagenorhynchus obscurus</u> Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat known to occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Physeter macrocephalus Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species

Name	Threatened	Type of Presence
		habitat may occur within
Migratory Terrestrial Species		area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952] Thalasseus bergii		Breeding known to occur within area
Greater Crested Tern [83000] Tringa brevipes		Breeding known to occur within area
Grey-tailed Tattler [851]		Species or species habitat known to occur

Name	Threatened	Type of Presence
		within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name

Commonwealth Land -

Calidris acuminata

Calidris alba

Sanderling [875]

Sharp-tailed Sandpiper [874]

Defence - HMAS STIRLING-ROCKINGHAM ;HMAS STIRLING - GARDEN ISLAND			
Commonwealth Heritage Places		[Resource Information]	
Name	State	Status	
Natural			
Garden Island	WA	Listed place	
Listed Marine Species		[Resource Information]	
* Species is listed under a different scientific name	on the EPBC Act - Threaten	ed Species list.	
Name	Threatened	Type of Presence	
Birds			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	
Anous stolidus			
Common Noddy [825]		Species or species habitat likely to occur within area	
Anous tenuirostris melanops			
Australian Lesser Noddy [26000] Apus pacificus	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	
Ardea ibis			
Cattle Egret [59542]		Species or species habitat may occur within area	
Arenaria interpres			
Ruddy Turnstone [872]		Species or species habitat known to occur within area	

Species or species habitat likely to occur within area

Species or species

Name	Threatened	Type of Presence
		habitat known to occur
		within area
<u>Calidris canutus</u>		
Red Knot, Knot [855]	Endangered	Species or species habitat
		known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat
Curiew Sariupipei [656]	Chilically Endangered	known to occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat
		likely to occur within area
Colidria ruficallia		
Calidris ruficollis Red-necked Stint [860]		Species or species habitat
Neu-neckeu Stifft [000]		known to occur within area
		miowii to ooddi wiiimi di da
<u>Calidris tenuirostris</u>		
Great Knot [862]	Critically Endangered	Species or species habitat
		known to occur within area
Cothorosto alvue		
Croot Skua [50473]		Chasias ar anasias habitat
Great Skua [59472]		Species or species habitat may occur within area
		may occar within area
Cereopsis novaehollandiae grisea		
Cape Barren Goose (south-western), Recherche Cape	Vulnerable	Breeding known to occur
Barren Goose [25978]		within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat
		known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat
,	9	known to occur within area
<u>Charadrius ruficapillus</u>		
Red-capped Plover [881]		Species or species habitat
		known to occur within area
Chrysococcyx osculans		
Black-eared Cuckoo [705]		Species or species habitat
• •		likely to occur within area
<u>Diomedea amsterdamensis</u>		
Amsterdam Albatross [64405]	Endangered	Species or species habitat
		likely to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
D'acceptant de la lateta de care de		within area
<u>Diomedea dabbenena</u>	Frador sored	Craciae ar anasiae babitat
Tristan Albatross [66471]	Endangered	Species or species habitat likely to occur within area
		intery to occur within area
<u>Diomedea epomophora</u>		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related
		behaviour likely to occur
Diomodos evulons		within area
<u>Diomedea exulans</u> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related
Wandening Albatross [09225]	vullierable	behaviour likely to occur
		within area
<u>Diomedea sanfordi</u>		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related
		behaviour likely to occur
Fudvotula minor		within area
Eudyptula minor Little Penguin [1085]		Brooding known to accum
Little Penguin [1085]		Breeding known to occur within area

Name	Threatened	Type of Presence
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Heteroscelus brevipes Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
Larus novaehollandiae Silver Gull [810]		Breeding known to occur within area
Larus pacificus Pacific Gull [811] Limosa lapponica		Breeding known to occur within area
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Breeding known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely

Name	Threatened	Type of Presence
Duffing a controlling		to occur within area
Puffinus assimilis Little Shearwater [59363]		Breeding known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Breeding known to occur within area
Puffinus griseus Sooty Shearwater [1024]		Species or species habitat may occur within area
Puffinus pacificus Wedge-tailed Shearwater [1027]		Breeding known to occur
Puffinus tenuirostris		within area
Short-tailed Shearwater [1029] Postratula benghalensis (sensu lato)		Breeding known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat known to occur within area
Sterna anaethetus Bridled Tern [814]		Breeding known to occur within area
Sterna bergii Crested Tern [816]		Breeding known to occur within area
Sterna caspia Caspian Tern [59467]		Breeding known to occur within area
Sterna dougallii Roseate Tern [817]		Breeding known to occur within area
Sterna fuscata Sooty Tern [794]		Breeding known to occur within area
Sterna nereis Fairy Tern [796]		Breeding known to occur
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	within area Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
Fish		

Name	Threatened	Type of Presence
Acentronura australe		
Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei		
Gale's Pipefish [66191]		Species or species habitat may occur within area
Choeroichthys suillus		
Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<u>Halicampus brocki</u>		
Brock's Pipefish [66219]		Species or species habitat may occur within area
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus angustus		
Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus breviceps		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus subelongatus		
West Australian Seahorse [66722]		Species or species habitat may occur within area
<u>Histiogamphelus cristatus</u>		
Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
<u>Leptoichthys fistularius</u>		
Brushtail Pipefish [66248]		Species or species habitat may occur within area
<u>Lissocampus caudalis</u>		
Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
<u>Lissocampus fatiloquus</u>		
Prophet's Pipefish [66250]		Species or species habitat may occur within area
<u>Lissocampus runa</u>		
Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata		
Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys meraculus		
Western Crested Pipefish [66259]		Species or species habitat may occur within area
Nannocampus subosseus		
Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Notiocampus ruber		_
Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques		
Leafy Seadragon [66267]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Phyllopteryx taeniolatus		
Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris		
Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis		
Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus		
Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra		
Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Syngnathoides biaculeatus		
Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<u>Urocampus carinirostris</u>		
Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer		
Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi		
Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus		
Longsnout Pipefish, Australian Long-snout Pipefish,		Species or species habitat
Long-snouted Pipefish [66285]		may occur within area
Mammals		
Arctocephalus forsteri		
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Breeding known to occur
Long-nosed i di-seai, New Zealand i di-seai [20]		within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Breeding known to occur within area
Reptiles		within area
Aipysurus laevis		
Olive Seasnake [1120]		Species or species habitat may occur within area
<u>Aipysurus pooleorum</u>		
Shark Bay Seasnake [66061]		Species or species habitat may occur within area
<u>Caretta caretta</u>		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<u>Chelonia mydas</u>		_
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<u>Dermochelys coriacea</u> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endongorod	Foreging fooding or related
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat
opodiadied deastiake [1120]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Disteira major Olive-headed Seasnake [1124]		Species or species habitat
Ephalophis greyi		may occur within area
North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur
Pelamis platurus Yellow-bellied Seasnake [1091]		within area Species or species habitat may occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Migration route known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Feresa attenuata Pygmy Killer Whale [61]		Species or species habitat may occur within area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within

	Status	Type of Presence
		area
Hyperoodon planifrons Southern Bottlenose Whale [71]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia simus Dwarf Sperm Whale [58]		Species or species habitat may occur within area
<u>Lagenodelphis hosei</u> Fraser's Dolphin, Sarawak Dolphin [41]		Species or species habitat may occur within area
<u>Lagenorhynchus obscurus</u> Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon ginkgodens Gingko-toothed Beaked Whale, Gingko-toothed Whale, Gingko Beaked Whale [59564]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Peponocephala electra Melon-headed Whale [47]		Species or species habitat may occur within area
Physeter macrocephalus Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Stenella coeruleoalba Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
Stenella longirostris Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
Steno bredanensis Rough-toothed Dolphin [30]		Species or species habitat may occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]	e	Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Name	Label
Abrolhos	Habitat Protection Zone (IUCN IV)
Abrolhos	Multiple Use Zone (IUCN VI)
Abrolhos	Special Purpose Zone (IUCN VI)
Bremer	National Park Zone (IUCN II)
Bremer	Special Purpose Zone (Mining
Eastern Recherche	National Park Zone (IUCN II)
Eastern Recherche	Special Purpose Zone (IUCN VI)
Geographe	Habitat Protection Zone (IUCN IV)
Geographe	Multiple Use Zone (IUCN VI)
Geographe	National Park Zone (IUCN II)
Geographe	Special Purpose Zone (Mining
Great Australian Bight	Special Purpose Zone (Mining
Jurien	Special Purpose Zone (IUCN VI)
South-west Corner	Habitat Protection Zone (IUCN IV)
South-west Corner	Multiple Use Zone (IUCN VI)
South-west Corner	National Park Zone (IUCN II)
South-west Corner	Special Purpose Zone (IUCN VI)
South-west Corner	Special Purpose Zone (Mining
Twilight	National Park Zone (IUCN II)
Twilight	Special Purpose Zone (Mining
Two Rocks	Multiple Use Zone (IUCN VI)

Extra Information

Domestic Cattle [16]

State and Territory Reserves	[Resource Information]
Name	State
Bald Island	WA
Boullanger, Whitlock, Favourite, Tern And Osprey Islands	WA
Eclipse Island	WA
Escape Island	WA
Flinders Bay	WA
Penguin Island	WA
Recherche Archipelago	WA
St Alouarn Island	WA
Unnamed WA44682	WA
Unnamed WA48968	WA

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis		
Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris		
Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula		
Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Bos taurus		

Species or species habitat likely to occur within area

Name	Status Type of Presence	
Canis lupus familiaris Domestic Dog [82654]	Species or species ha likely to occur within a	
Felis catus Cat, House Cat, Domestic Cat [19]	Species or species ha likely to occur within a	
Feral deer Feral deer species in Australia [85733]	Species or species ha likely to occur within a	
Funambulus pennantii Northern Palm Squirrel, Five-striped Palm Squirrel [129]	Species or species ha likely to occur within a	
Mus musculus House Mouse [120]	Species or species ha likely to occur within a	
Oryctolagus cuniculus Rabbit, European Rabbit [128]	Species or species ha likely to occur within a	
Rattus norvegicus Brown Rat, Norway Rat [83]	Species or species ha likely to occur within a	
Rattus rattus Black Rat, Ship Rat [84]	Species or species ha likely to occur within a	
Sus scrofa Pig [6]	Species or species ha likely to occur within a	
Vulpes vulpes Red Fox, Fox [18]	Species or species ha likely to occur within a	
Plants		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]	Species or species ha likely to occur within a	
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]	Species or species ha likely to occur within a	
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]	Species or species ha likely to occur within a	
Asparagus plumosus Climbing Asparagus-fern [48993]	Species or species ha likely to occur within a	
Brachiaria mutica Para Grass [5879]	Species or species ha may occur within area	
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]	Species or species ha may occur within area	
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]	Species or species ha may occur within area	
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]	Species or species ha likely to occur within a	

Name	Status	Type of Presence
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax E [2800]	Broom	Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, La leaf Lantana, Pink Flowered Lantana, Red Flowe Lantana, Red-Flowered Sage, White Sage, Wild [10892]	red	Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wildir Pine [20780]	ng	Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]	d	Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron Willows except Weeping Willow, Pussy Willow ar Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, K Weed [13665]	ariba	Species or species habitat likely to occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk Athel Tamarix, Desert Tamarisk, Flowering Cypre Salt Cedar [16018]	•	Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Key Ecological Features (Marine)

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Ancient coastline at 90-120m depth	South-west
Commonwealth marine environment surrounding	South-west
Commonwealth marine environment within and	South-west
Commonwealth marine environment within and	South-west
Diamantina Fracture Zone	South-west
Naturaliste Plateau	South-west
Western demersal slope and associated fish	South-west
Western rock lobster	South-west

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the gualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

 $-25.765206\ 109.237891, -25.725623\ 109.501563, -25.992551\ 109.732276, -25.992551\ 109.875098, -26.071525\ 110.182716, -26.229314\\ 110.325538, -25.656321\ 112.127296, -27.717513\ 112.984229, -27.814726\ 114.02793, -28.202708\ 114.159766, -28.483117\ 114.445411, -28.695347\ 114.577247, -28.974447\ 114.599219, -29.147305\ 114.818946, -29.530391\ 114.950782, -29.921554\ 114.89585, -30.746498\ 115.082618, -31.517621\ 115.533057, -31.863505\ 115.730811, -32.523601\ 115.67588, -32.634692\ 115.544044, -33.16049\ 115.620948, -33.619137\ 115.302344, -33.49096\ 114.994727, -33.737988\ 114.928809, -34.275319\ 114.972755, -34.46575\ 115.126563, -34.366055\ 115.269385, -34.818257\ 115.917579, -34.908402\ 116.060401, -35.106373\ 116.598731, -35.11536\ 117.389747, -35.169263\ 117.774268, -35.169263\ 118.081885, -34.980447\ 118.312598, -34.402321\ 119.663917, -34.30255\ 119.56504, -34.029844\ 119.883643, -33.938746\ 120.960303, -33.911398\ 121.399757, -34.011632\ 121.949073, -34.102652\ 122.476417, -34.038948\ 123.432227, -33.591687\ 124.091407, -33.10529\ 124.212257, -32.902593\ 125.014258, -32.319576\ 126.134864, -32.375265\ 127.123633, -31.760809\ 129.035255, -35.294897\ 129.068214, -35.634921\ 127.541114, -37.453004\ 125.157081, -37.696807\ 123.058692, -37.688114\ 120.817481, -38.46644\ 118.664161, -38.337294\ 115.697852, -37.418109\ 113.368751, -36.584603\ 112.028419, -34.998448\ 111.061622, -33.545916\ 110.973731, -31.984725\ 111.512061, -31.414542\ 111.270362, -30.026241\ 110.182716, -28.396173\ 109.798194, -27.756409\ 109.875098, -25.765206\ 109.237891, -25.765206\ 109.237891$

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Office of Environment and Heritage, New South Wales
- -Department of Environment and Primary Industries, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment, Water and Natural Resources, South Australia
- -Department of Land and Resource Management, Northern Territory
- -Department of Environmental and Heritage Protection, Queensland
- -Department of Parks and Wildlife, Western Australia
- -Environment and Planning Directorate, ACT
- -Birdlife Australia
- -Australian Bird and Bat Banding Scheme
- -Australian National Wildlife Collection
- -Natural history museums of Australia
- -Museum Victoria
- -Australian Museum
- -South Australian Museum
- -Queensland Museum
- -Online Zoological Collections of Australian Museums
- -Queensland Herbarium
- -National Herbarium of NSW
- -Royal Botanic Gardens and National Herbarium of Victoria
- -Tasmanian Herbarium
- -State Herbarium of South Australia
- -Northern Territory Herbarium
- -Western Australian Herbarium
- -Australian National Herbarium, Canberra
- -University of New England
- -Ocean Biogeographic Information System
- -Australian Government, Department of Defence
- Forestry Corporation, NSW
- -Geoscience Australia
- -CSIRO
- -Australian Tropical Herbarium, Cairns
- -eBird Australia
- -Australian Government Australian Antarctic Data Centre
- -Museum and Art Gallery of the Northern Territory
- -Australian Government National Environmental Science Program
- -Australian Institute of Marine Science
- -Reef Life Survey Australia
- -American Museum of Natural History
- -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
- -Tasmanian Museum and Art Gallery, Hobart, Tasmania
- -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

APPENDIX B. SUPPORTING FIGURES FOR SECTION 2.3 METEOROLOGY AND OCEANOGRAPHY

Browse

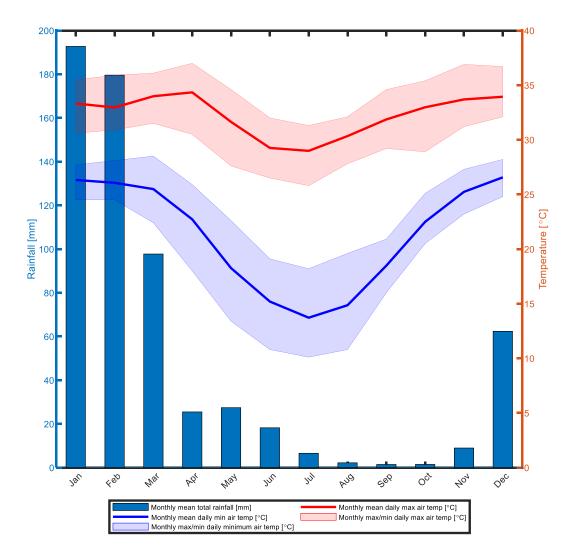


Figure 1. Monthly average total rainfall [mm] and air temperature [°C], calculated based on observations at the Broome Airport weather station from 1939-2020 (Bureau of Meteorology 2020). Bars show the monthly average total rainfall values, and thick blue and red lines denote monthly average daily minimum and maximum air temperatures, respectively. Shaded blue and red areas denote monthly recorded extremes of daily minimum and maximum air temperature, respectively.

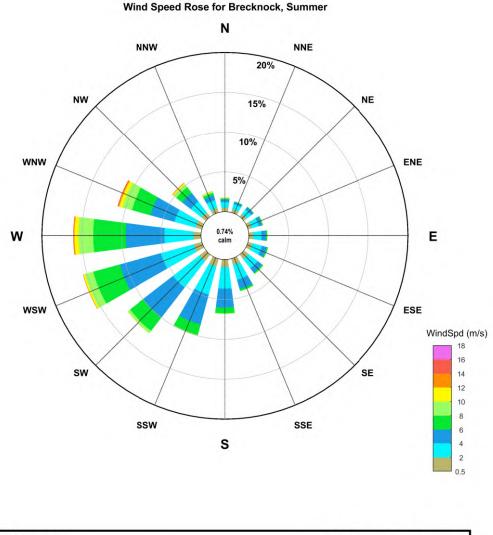
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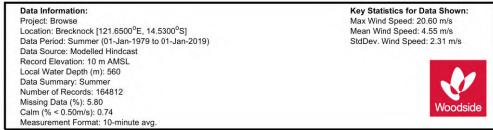


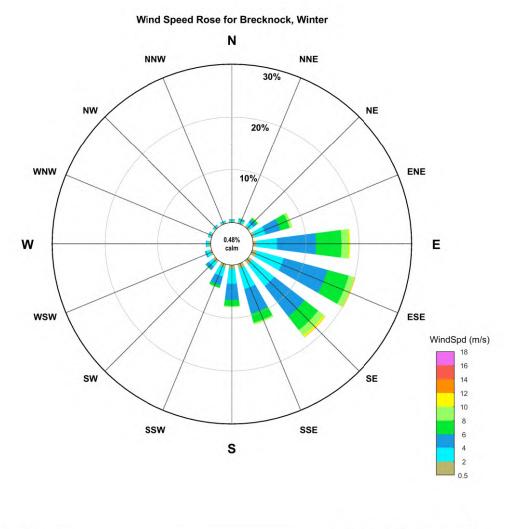
Figure 2. Summer distributions of 10-minute average wind speeds by 22.5° directional sectors at the Brecknock site (Metocean Solutions Ltd, 2019). Note tropical cyclone events were not included in this distribution. Winds at Brecknock in summer are predominantly from the WNW to SW due to the North West Monsoon (WEL, 2019).

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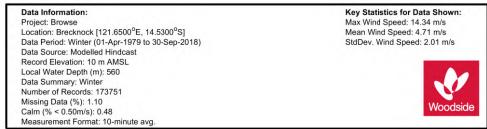


Figure 3. Winter distributions of 10-minute average wind speeds by 22.5° directional sectors at the Brecknock site (Metocean Solutions Ltd, 2019). Note tropical cyclone events were not included in this distribution. Winds at Brecknock in winter are predominantly from the E to SE due to the South East Trade Winds coming from the Australian mainland (WEL, 2019).

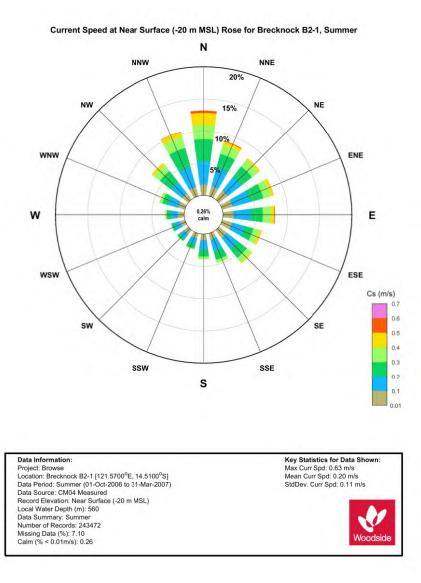


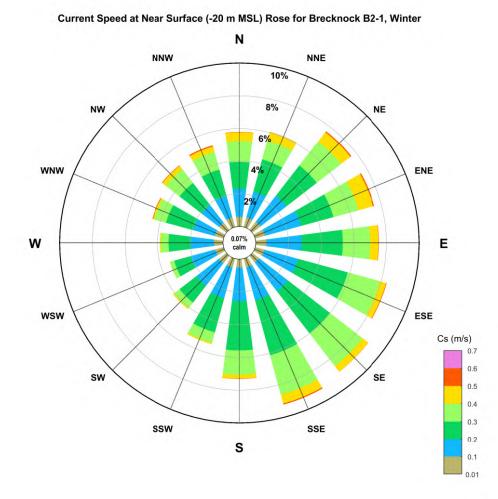
Figure 4. Summer (Nov-Apr) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at Brecknock B2-1 location (cyclones removed) (RPS Metocean Ltd. 2008).

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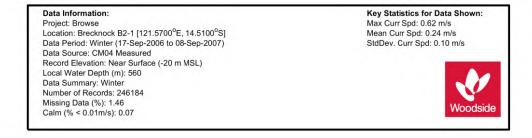


Figure 5. Winter (May-Sep) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at Brecknock B2-1 location (cyclones removed) (RPS Metocean Ltd. 2008).

North-west Shelf/Scarborough

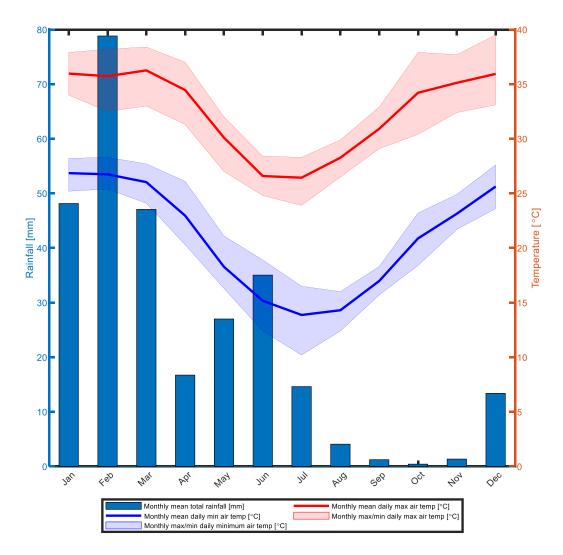


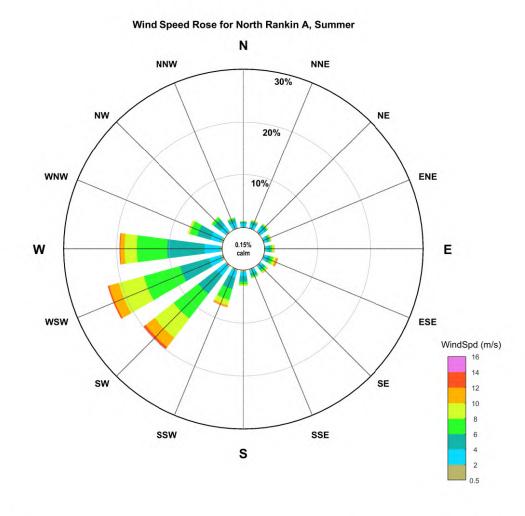
Figure 1. Monthly average total rainfall [mm] and air temperature [°C], calculated based on observations at the Karratha Aero weather station from 1972-2020 and 1993-2020 respectively (Bureau of Meteorology 2020). Bars show the monthly average total rainfall values, and thick blue and red lines denote monthly average daily minimum and maximum air temperatures, respectively. Shaded blue and red areas denote monthly recorded extremes of daily minimum and maximum air temperature, respectively.

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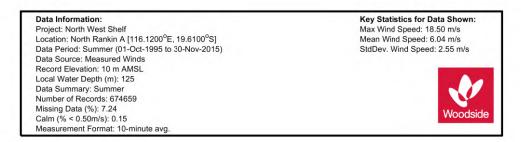


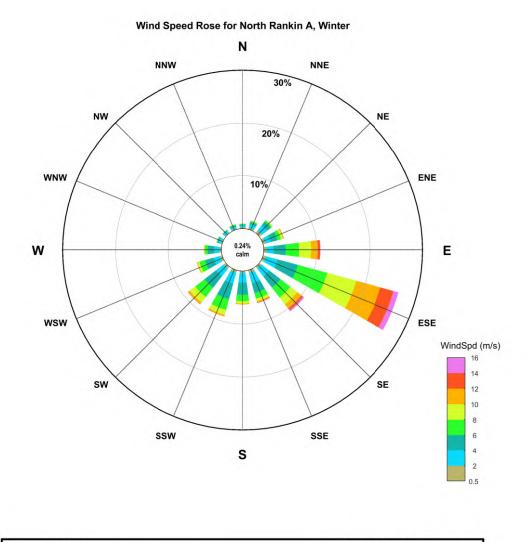
Figure 2. Summer distributions of 10-minute average wind speeds by 22.5° directional sectors at the North Rankin A site (WEL, 2015). Note tropical cyclone events were not included in this distribution. Winds at North Rankin A in summer are characterised by W to SW driven by the North West Monsoon (RPS, 2016).

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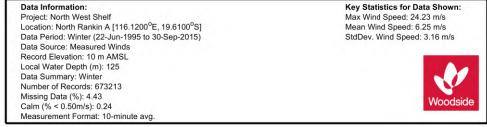


Figure 3. Winter distributions of 10-minute average wind speeds by 22.5° directional sectors at the North Rankin A site (WEL, 2015). Note tropical cyclone events were not included in this distribution. Winds at North Rankin in winter are predominantly influenced by the South East Trade Winds over Australia (RPS, 2016).

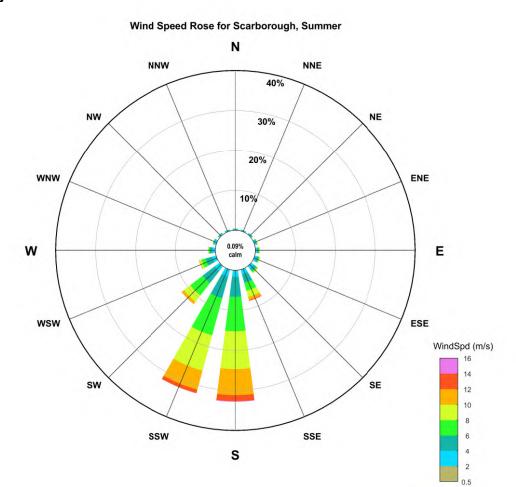
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Scarborough



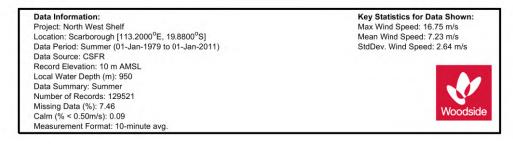


Figure 4. Summer distributions of wind speeds (10-minute at 10m ASL) by 22.5° directional sectors at the Scarborough site (WEL, 2018). Note tropical cyclone events were not included in this distribution. Winds at Scarborough in summer are predominantly from the S to SSW due to a Pilbara Heat Low forming over the northwest coast of Western Australia [R8] SW winds are also experienced at this site due to the monsoon trough.

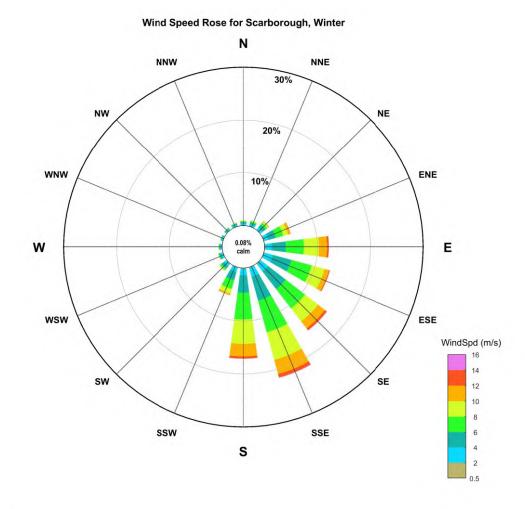
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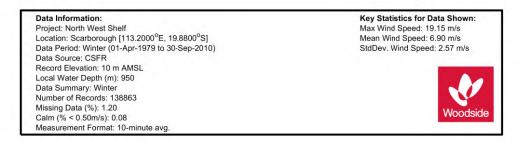


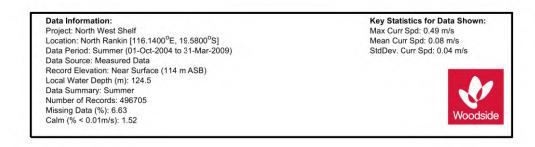
Figure 5. Winter distributions of wind speeds (10-minute at 10 m ASL) by 22.5° directional sectors at the Scarborough site (WEL, 2018). Note tropical cyclone events were not included in this distribution. Winds at Scarborough in winter are predominantly from the S to E driven by the South East Trade Winds over Australia (RPS, 2016).

North-west Shelf

N NNW NNE 20% NW NE 15% 10% WNW **ENE** W E WSW ESE Cs (m/s) 0.25 SW SE

SSE

Current Speed at Near Surface (114 m ASB) Rose for North Rankin, Summer



S

SSW

Figure 6. Summer (Nov-Apr) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at the North Rankin location (cyclones removed) (WEL, 2011).

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0.2

0.1

0.05

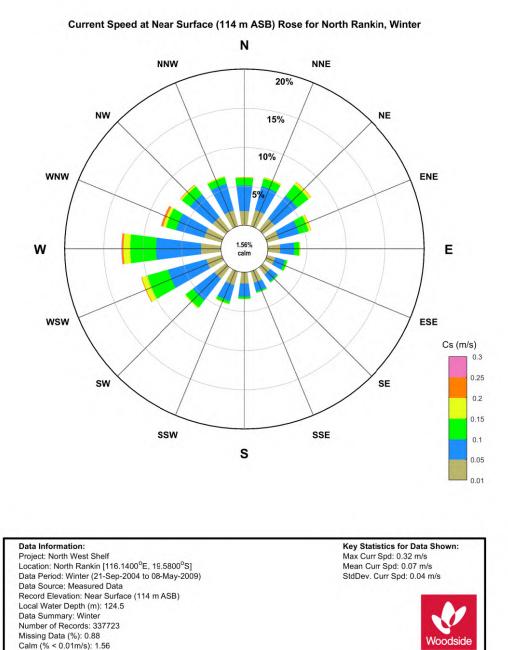


Figure 7. Winter (May-Sep) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at the North Rankin location (cyclones removed) (WEL, 2011).

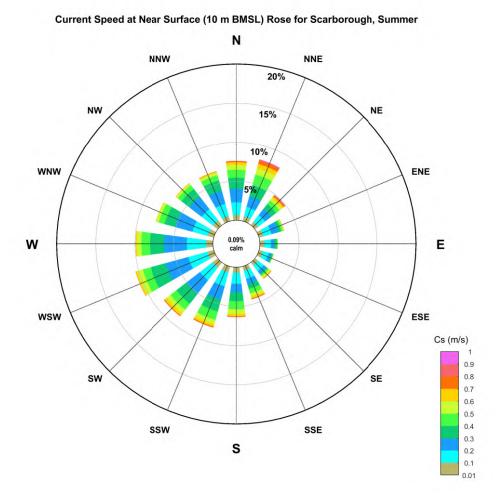
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Scarborough



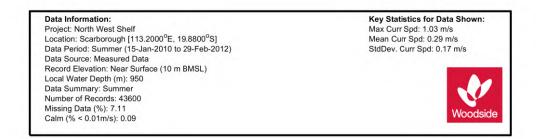
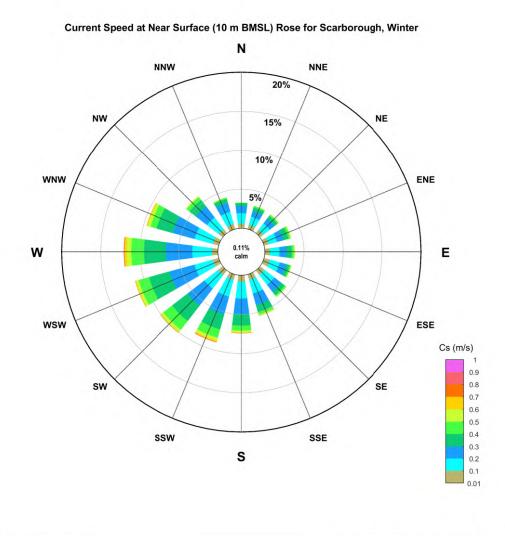


Figure 8. Summer (Nov - April) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at the Scarborough location (cyclones removed) (WEL, 2018).

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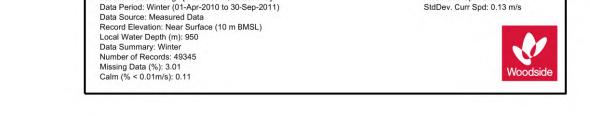


Figure 9. Winter (May-Sep) near surface combined frequency of 1-min mean current speed and direction (towards) measured at the Scarborough location (cyclones removed) (WEL, 2018).

Controlled Ref No: G2000RH1401743486

Data Information:

Project: North West Shelf

Location: Scarborough [113.2000°E, 19.8800°S]

Revision: 0

Woodside ID: 1401743486

Key Statistics for Data Shown:

Max Curr Spd: 1.03 m/s

Mean Curr Spd: 0.25 m/s

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North-west Cape

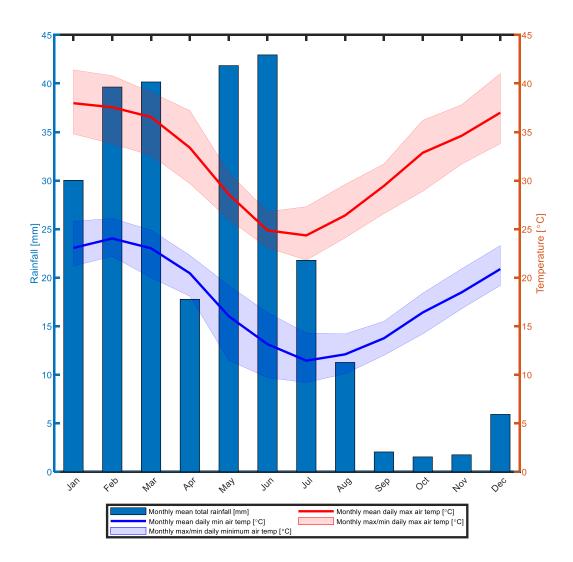
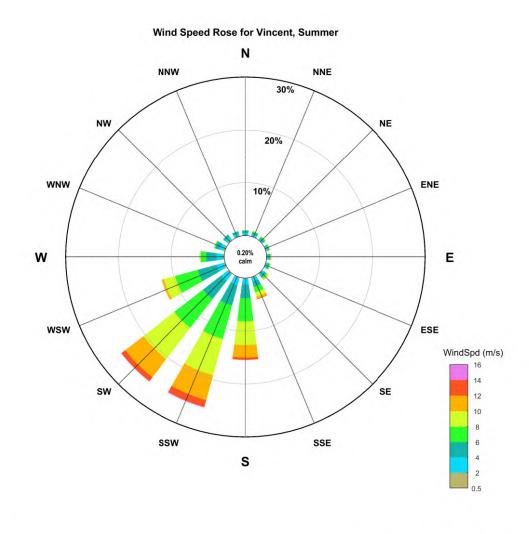


Figure 1. Monthly average total rainfall [mm] and air temperature [°C], calculated based on observations at the Learmonth Airport weather station from 1945-2020 and 1975-2020 respectively (Bureau of Meteorology 2020). Bars show the monthly average total rainfall values, and thick blue and red lines denote monthly average daily minimum and maximum air temperatures, respectively. Shaded blue and red areas denote monthly recorded extremes of daily minimum and maximum air temperature, respectively.



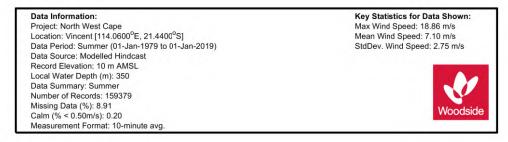


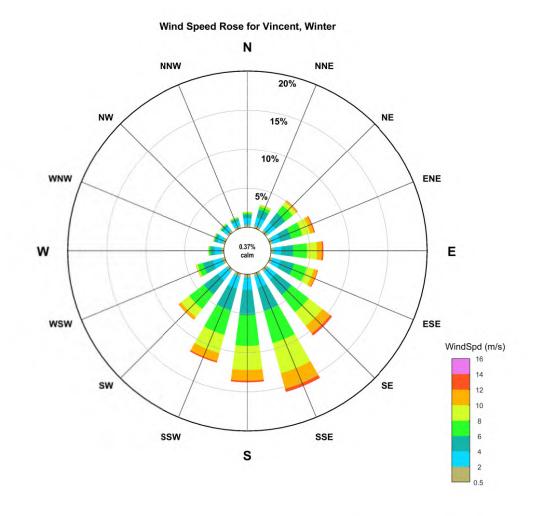
Figure 2. Summer distributions of wind speeds (10-minute at 10 m ASL) by 22.5° directional sectors at the Vincent site (Vincent Metocean). Note tropical cyclone events were not included in this distribution. Winds at Vincent in summer are predominantly from the SW to SSW in summer due to the presence of the Pilbara Heat Low (MetOcean Engineers, 2005).

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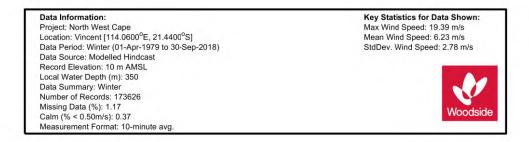


Figure 3. Winter distributions of wind speeds (10-minute at 10 m ASL) 22.5° directional sectors at the Vincent site (Vincent Metocean). Note tropical cyclone events were not included in this distribution. In winter, winds at are predominantly from the S to SE, associated with the South East Trades. Easterly gales are experienced at the Vincent location due to high pressure systems generating from the Great Australian Bight area to the site (MetOcean Engineers, 2005).

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NNW NNE 20% NW NE 15% 10% ENE WNW W E wsw ESE Cs (m/s) 0.6 SW 0.5 0.4 0.3 SSW SSE 02 S 0.1 0.01

Current Speed at Near Surface (340 m ASB) Rose for Vincent, Summer

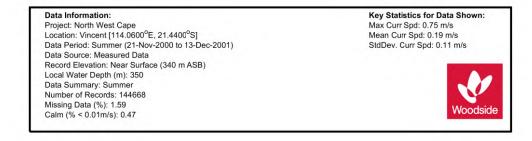


Figure 4. Summer (May – Sep) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at the Vincent location (cyclones removed) (WEL, 2016).

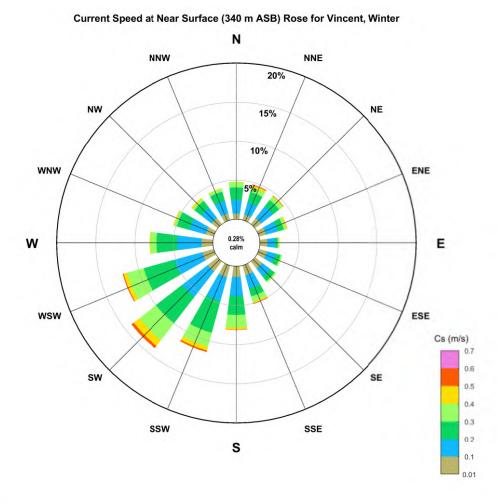
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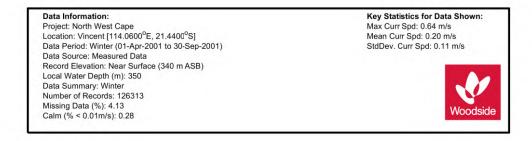


Figure 5. Winter (Nov – Apr) near surface combined frequency of 1-minute mean current speed and direction (towards) measured at the Vincent location (cyclones removed) (WEL, 2016).

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Validation of SWAN ST6 Wave Model", DRIMS 1401150817.

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Programme: September 2006 to February 2008 Final Data Report." CRN: JB0020RT0019.

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WEL 2015. Winds Measured at North Rankin A 1995-2015.

WEL 2018. Scarborough Development - Non-Cyclonic and Operational Metocean Design Criteria – Spreadsheet, Revision A, CRN: SA0009CT1400722569.

WEL 2019. "Browse Development - Metocean Design Basis" CRN: JJ0013ST1400274448.

APPENDIX J. PROGRAM OF ONGOING ENGAGEMENT WITH TRADITIONAL CUSTODIANS

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Proposed Program of Ongoing Engagement with Traditional Custodians

This Program of Ongoing Engagement with Traditional Custodians ("Program") has been developed to demonstrate Woodside's commitment to ongoing engagement and support of Traditional Custodians' capacity to care for and manage Country, including Sea Country, and has been directly informed by Traditional Custodians' feedback regarding their capacity to engage and consult on Environment Plans.

It is a living document designed to evolve with ongoing consultation and feedback from Traditional Custodians and, at a minimum, will be subject to annual review. In addition to this Program, Woodside will continue to participate in, and support collective industry engagement with Traditional Owners on the development of a future, sustainable, industry wide Program. Through the Program, Woodside actively supports Traditional Custodians' capacity for, and involvement in, ongoing engagement and feedback on environment plans.

The Program has been developed so that Traditional Custodians can, on an ongoing basis, provide Woodside with feedback relating to the possible consequences of an activity to be carried out under an environment plan on their functions, interests and activities as they relate to cultural values. This feedback will be evaluated in conjunction with Traditional Custodians and, where necessary, avoidance or mitigation strategies in will be developed in collaboration with Traditional Custodians. How the Program is implemented with specific Traditional Custodians will depend on their stated needs and priorities

The Program is underpinned by Woodside's First Nations Communities Policy (woodside.com), the objective of which is to ensure Woodside partners and engages with First Nations communities to create positive economic, social and cultural outcomes that leave a lasting legacy. Woodside does this through building respectful relationships and partnerships with First Nations communities where we are active, in the areas where they are most interested in. We acknowledge the unique connection that First Nations communities have to land, waters and the environment.

The Program will include, as agreed with relevant communities, reasonable commitment to:

1. Support for ongoing dialogue and engagement

Woodside will support the capacity of Traditional Custodians to participate in ongoing dialogue and engagement about the environment plans and to enable the ongoing and future identification of cultural values potentially impacted by Woodside's activities. Woodside further commits to agreeing consultation protocols with individual Traditional Custodians to ensure the material provided is appropriate in level of detail such that the potential for cultural impact from Woodside activities can be determined and as required measures can be adopted to avoid or minimise impact.

In addition, Woodside will receive feedback on cultural values from an individual person or organisation that identifies as a Traditional Custodian, at any stage during the development and implementation of activities. This feedback will be evaluated, in conjunction with the Traditional Custodian individual or group and if required, control measures will put in place to avoid impacts to cultural values, or where avoidance is not possible, to minimise and mitigate the impacts to an acceptable level.

Where cultural values are identified post activity completion, any controls relevant to value management will be implemented during the next relevant activity.



2. Support for the identification and recording of cultural features

Woodside will support Traditional Custodians to record and articulate their Sea Country values and will invest in cultural assessments codesigned with Traditional Custodians, where required, to inform potential risks to cultural values from our petroleum activities.

This may include supporting cultural mapping by Traditional Custodians to identify and map significant cultural features including archaeological sites and other cultural values. The scoping of the mapping process will be codesigned with Traditional Custodians.

Woodside understands that cultural knowledge remains the intellectual property of Traditional Custodians and will agree with Traditional Custodians at the outset how that information from surveys will be used to feedback into and inform the environment plan's design and implementation.

In addition, Woodside applies the Cultural Heritage Management Procedure 2019, updated in 2023, to the Program which:

- provides a process for the identification, protection, and management of Cultural Heritage taking into account relevant standards, in particular, the United Nations Declaration on the Rights of Indigenous Peoples, the Charter for the Protection and Management of the Archaeological Heritage, the Convention for the Safeguarding of the Intangible Cultural Heritage, and the Convention on the Protection of the Underwater Cultural Heritage;
- applies to underwater cultural heritage and, consistent with current practice, provides for the commissioning of (where appropriate) both archaeological and ethnographic assessments of cultural values over the submerged landscape; and
- the process includes the following:
 - o early engagement with relevant Traditional Custodians
 - identification of potential heritage, this could include desktop and field surveys undertaken with the Traditional Custodians.
- the development of cultural management strategies; and, where it is determined cultural heritage may be impacted, the development of Cultural Heritage Management Plans codesigned with Traditional Custodians and implemented by Woodside's First Nations team which:
 - o focus on avoidance or minimisation of impacts; and
 - o provide regular reviews and for inclusion of new information and further development of the Cultural Heritage Management Plan.

Woodside is committed to continue to receive feedback on cultural values for the life of an environment plan, the inclusion of new information and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians. This information will be recorded via the Woodside Management of Knowledge Process and any potential impacts to the accepted Environment Plan evaluated via the Woodside Management of Change Process.

3. Building capacity for the ongoing protection of country

Woodside will support measures to increase the capability and capacity of the Traditional Custodian groups. This is guided by Woodside's Indigenous Affairs Strategy 2019 ("Strategy"), which is designed to enable the building and maintaining of relationships with Traditional Custodians to leave a lasting legacy, including strengthening of Traditional Custodians' capacity to care for and manage Country, including Sea Country. The Strategy was developed with inputs from Traditional Custodians and contains four pillars that direct Woodside's social investment, policies relating to economic development, procurement and employment, and Woodside's agreement making and implementation of agreements. The pillars are:

- 1. Culture and Heritage Management: support social outcomes through protection, recognition and respect for culture and heritage;
- 2. Economic Participation: provide training, jobs, and business opportunities;



- 3. Capability and capacity: ensure strong corporate governance, leadership development and education initiatives to support self-determination; and
- 4. Safer and Healthier Communities: partner with Aboriginal people and service providers to maximise safer and healthier community outcomes.

Woodside is committed to an ongoing relationship between Woodside and the Traditional Custodian groups. Through consultation with Traditional Custodians Woodside will continue to:

- establish support for Indigenous ranger programs via social investment;
- establish support for Indigenous oil spill response capability via investigating training models;
- establish support for identification and recording of cultural values and the management of that information by Traditional Custodians;
- establish support for programs identified by the Traditional Custodians as important to them and as agreed by Woodside.

4. Support for capacity and capability in relation to governance

Pillar 3 of the Indigenous Affairs Strategy 2019 focuses on ensuring strong corporate governance, leadership development and education initiatives to support self-determination. To enable this, Woodside will support measures to increase the capability and capacity of the Traditional Custodian groups, including in relation to governance and management systems.

The nature of this support will be informed by the individual needs of Traditional Custodian groups, but may include:

- funding or other support for community meetings, particularly where consultation with representative bodies lies outside of that body's core business and cultural authority or mandate needs to be secured,
- resourcing internal expertise so that information is managed consistently and internally, including ensuring appropriate record keeping of consultation to provide stakeholders with a lasting record of discussions, and
- development or upgrade of IT systems to manage information.

5. Program Reporting and Review of Effectiveness

Woodside will undertake an annual review of the Program to assess its effectiveness and adapt the Program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.

Progress of the Program will be reported annually in line with annual sustainability reporting via the Woodside website.

A commitment to the Program will be included in all new and revised Environment Plans in the format below:



Environmental Performance Outcome	Environmental Performance standards	Measurement Criteria
EPO 1 Woodside will actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans for the purpose of avoiding impacts to cultural heritage values	EPS 1.1 Implement a program, which is compliant with Corporate Woodside Policies Strategies and procedures, to undertake ongoing consultation with Traditional Custodians whose functions, interests and activities may be affected by the Petroleum Activities Program. The Program will include, where agreed with relevant Traditional Custodians: Social investment to support Indigenous ranger programs Support for Indigenous oil spill response capabilities Support to Traditional Custodian groups to build capabilities and capacity with respect to ability to engage with Woodside and the broader O&G industry on activities Development of ongoing relationships with Traditional Custodian groups Any other initiatives proposed for the purpose of protecting country including cultural values Consideration of new cultural values / new information, through the life of the EP, and the development of avoidance or mitigation strategies in collaboration with Traditional Custodians if impacts to cultural values are identified. Where avoidance is not possible, impact minimisation will be prioritised and demonstrated through a written options analysis / ALARP to ensure an acceptable level of impact. This will be documented through Woodside's Management of Knowledge processes.	MC1.1 Records demonstrate discussions with relevant Traditional Custodian Groups on proposed partnerships and/or initiatives initiated by Woodside, and responses to feedback provided by Woodside within 4 weeks MC 1.2 Progress of the Program will be reported in line with annual sustainability reporting via the Woodside website. MC 1.3 Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified
	EPS 1.2 Undertake an annual review of the program to determine its effectiveness and adapt the program accordingly. The annual review will also include an assessment of appropriateness of the methods used to undertake ongoing consultation with Traditional Custodians.	MC 1.4 Records demonstrate an annual review of the Program has been undertaken



6. Current Status

Following distribution of this proposed Program, Woodside is now participating in a number of specific ongoing consultation activities with Traditional Custodian Relevant Persons. Specific ongoing activities are tabulated below:

Traditional Custodian Relevant Person	Ongoing Consultation Description	Forward Plan	Estimated Timeframes
Buurabalayji Thalanyji Aboriginal Corporation	Refer to EP Section 7.5 – Thalanyji Sea Country Management. BTAC proposed a Collaboration Agreement in May 2023, Woodside agreed in principle, and exchanged correspondence to understand details of the proposal. The Collaboration Agreement would enable support for BTAC to undertake an ethnographic assessment to articulate values, and ensure appropriate cost recovery	Refer to EP Section 7.5 – Thalanyji Sea Country Management Woodside and BTAC have executed a Costs Acceptance Letter. Woodside has developed a Collaboration Agreement which is currently under internal Woodside review. Once settled internally it will be put to BBTAC for their consideration.	Refer to EP Section 7.5 – Thalanyji Sea Country Management. The draft Collaboration Agreement will be provided to BTAC for consideration in October 2023. Woodside will follow up on a monthly basis for at least six months with BTAC once they are in receipt of the draft proposed Collaboration Agreement from Woodside, or until the Agreement is in place.
Yamatji Marlpa Aboriginal Corporation	In June 2023, YMAC provided Woodside a proposed draft Framework Agreement, and a proposal to fund in-house expertise to support consultation and implement the Collaboration Framework. In July 2023, Woodside agreed in principle to the proposed Collaboration Framework and the funding proposal and requested a meeting to work together on details. Woodside provided the Proposed Program of Ongoing Consultation to complement the proposed Collaboration Framework.	Woodside will continue to communicate with YMAC, seeking to collaborate and reach agreement on the proposed Collaboration Framework and funding agreement. At the point of EP submission, Woodside is seeking a meeting with YMAC at YMAC's earliest convenience.	Woodside will follow up with YMAC on a monthly basis for at least six months, seeking to progress the Collaboration Framework and funding agreement.
WAC	In August 2023, WAC proposed a Framework Agreement with Woodside to provide a streamlined, formalised approach to consultation between WAC and Woodside. Woodside has confirmed receipt of the proposed framework from WAC.	Woodside is in contact with the WAC CEO and is currently developing a response to the proposed Framework Agreement put forward by WAC. WAC do not object to Woodside progressing environmental plans on the proviso that both parties enter into an Agreement suitable to each party. WAC have suggested a timeframe to settle the Agreement over the next 2-3 months. Woodside will be aiming to reach agreement within a shorter timeframe.	Ongoing Framework Agreement settled in 2023.
Ngarluma Aboriginal Corporation	In September 2023, NAC proposed a Joint Working Group to practically manage consultation processes. It was proposed that the group would meet monthly for 2023 and quarterly thereafter, meetings would include NAC CEO and NAC Directors and potentially independent SME/s, the proposal was that Woodside draft a Framework Agreement, and included a request for funding for this approach. Woodside provided in-principle support for the proposal.	Woodside has provided in-principle support for NAC's proposal and is currently developing a draft Framework Agreement which once settled internally will be sent to NAC for their response.	In accordance with NAC's proposed timeframe, Woodside aims to prepare a draft Framework Agreement, settle internally and then meet to discuss in 2023.



Nganhurra Thanardi Garrbu Aboriginal Corporation	In a meeting during August 2023, NTGAC proposed a Framework Agreement. This included terms for ongoing engagement such as frequency of consultation, participation, and content. NTGAC has also requested Woodside provide funding for an inhouse environmental scientist to review material. Woodside agreed in principle to this approach, and has requested a first draft of the Framework Agreement for consideration. Woodside have agreed to pay for YMAC's in-house scientist to attend NTGAC meetings to advise NTGAC.	Woodside and NTGAC/YMAC have agreed in writing to develop a Framework Agreement. Woodside have been responding to queries from NTGAC who have passed information provided by Woodside onto their Environmental Scientist. Woodside are awaiting a proposed draft of a Framework Agreement and general report. YMAC's preference is to prepare the drafts, Woodside have offered to assist with drafting and remain ready to respond on receipt of documents.	Woodside will follow up with NTGAC on a monthly basis for at least six months, seeking to progress the Framework Agreement and General report.
Yinggarda Aboriginal Corporation	In August 2023, YAC requested Woodside provide a draft Framework Agreement for their consideration. Woodside has provided a draft Framework Agreement to YAC for review.	Woodside's Proposal suggests meeting with YAC every 3 months to progress matters. The Proposal suggests committing to work continuing between meetings with each party nominating focal points. A Scope of Work and schedule of rates is included to re-imburse the cost of ongoing consultation. Woodside's Proposal includes timeframes for anticipated milestones and has suggested the Proposal be in place for an initial 2-year period. Woodside has provided the draft Framework Agreement to YAC; they have advised that they will seek direction from the YAC Board on the proposal.	Woodside will continue following up with YAC on a monthly basis for at least six months, seeking to progress the Framework Agreement.
Robe River Kuruma Aboriginal Corporation	RRKAC have noted that they are insufficiently resourced to engage further and respond to Woodside regarding EPs. Woodside assesses that a Framework Agreement could address this.	Woodside has on several occasions written to RRKAC offering to fund consultation meetings. Woodside will offer RRKAC a Framework Agreement which will propose funding, scope of work and timeframes to assist with consultation and ongoing consultation. If RRKAC are open to the proposal, it is intended to put forward a draft Framework Agreement to RRKAC within the next 2 months.	Woodside will follow up with RRKAC monthly for at least six months, seeking to progress a Framework Agreement.
Ngarluma Yindjibarndi Foundation Limited	NYFL and Woodside have an existing Agreement in place which enables quarterly communication about Woodside activities. NYFL has said they are working with other First Nations organisation and representative Bodies developing a Framework Agreement.	Woodside has not yet seen a draft of the Framework Agreement. Woodside's expectation is that it will outline principles of engagement, details of resourcing, timeframes to meet agreed outcomes etc. Woodside look forward to receiving a draft Agreement and will engage with NYFL to settle on the details of any proposal.	Woodside will continue to follow up monthly with NYFL for at least six months, seeking to progress a Framework Agreement.