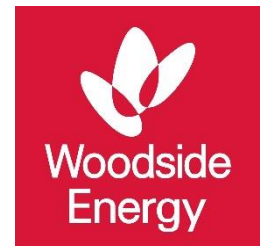


# Goodwyn Alpha Geophysical and Geotechnical Surveys Environment Plan

Global Wells & Seismic

April 2024

Revision 2



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# 1. INTRODUCTION

## 1.1 Overview

Woodside Energy Ltd (Woodside), under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Commonwealth) (referred to as the Environment Regulations), proposes to conduct a series of geotechnical and geophysical surveys which will collectively form the Petroleum and Greenhouse Gas Activities Program (PGGAP).

The PGGAP is proposed to be undertaken to support future activities within the titles listed in Table 1-1, including the Goodwyn A (GWA) infill development, plug and abandonment (P&A) activities at various wells and future exploration activities for greenhouse gas activities and petroleum activities.

**Table 1-1: Permit area where proposed petroleum and greenhouse gas activities are planned**

<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>
WA-7-R	WA-1-L	WA-3-L
WA-57-L	WA-2-L	G-10-AP
WA-58-L		
WA-56-L		
WA-24-L		
WA-23-L		
WA-6-L		
WA-5-L		

## 1.2 Purpose of the Environment Plan

In accordance with the objectives of the Environment Regulations, the purpose of this EP is to demonstrate that:

- The potential environmental impacts and risks (planned (routine and non-routine) and unplanned) that may result from the PGGAP are identified.
- Appropriate management controls are implemented to reduce impacts and risks to a level that is 'as low as reasonably practicable' (ALARP) and acceptable.
- The PGGAP is carried out in a manner consistent with the principles of ecologically sustainable development (ESD) (as defined in Section 3A of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)).

## 1.3 Environment Plan Summary

Table 1-2 summarises the content of this EP, as required by Regulation 35(7).

**Table 1-2: EP summary**

<b>EP summary material requirement</b>	<b>Relevant section of this EP containing EP summary material</b>
The location of the activity	Section 3.3
A description of the existing environment	Section 4
A description of the activity	Section 3

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EP summary material requirement	Relevant section of this EP containing EP summary material
Details of the environmental impacts and risks	Section 6
The control measures for the activity	Section 6
The arrangements for ongoing monitoring of the titleholder's environmental performance	Section 7.7
Response arrangements in the oil pollution emergency plan	Section 7.11
Consultation already undertaken and plans for ongoing consultation	Section 5
Details of the titleholder's nominated liaison person for the activity	Section 1.6.2

## 1.4 Description of the Titleholder

Woodside will be conducting the PGGAP on behalf of the Woodside titleholders and joint venture participants with interests in up to 14 petroleum titles and one greenhouse gas title. The details of the titles, titleholders and joint venture participants are detailed Table 1-3.

**Table 1-3: Titleholder Details Relevant to the PGGAP**

Operational Area	Permit Areas	Operator/Woodside Titleholder	Joint Venture Participants
Operational Area A	WA-7-R WA-57-L WA-58-L WA-56-L WA-24-L WA-23-L WA-6-L WA-5-L	Woodside Energy Ltd	Woodside Energy Ltd., BP Developments Australia Pty. Ltd., Chevron Australia Pty Ltd, Shell Australia Pty Ltd, Woodside Energy (North West Shelf) Pty Ltd, Japan Australia LNG (MIMI) Pty. Ltd. and CNOOC NWS Private Limited
Operational Area B	WA-1-L WA-2-L	Woodside Energy Ltd	Woodside Energy Ltd., BP Developments Australia Pty. Ltd., Chevron Australia Pty Ltd, Shell Australia Pty Ltd, Woodside Energy (North West Shelf) Pty Ltd, Japan Australia LNG (MIMI) Pty. Ltd. and CNOOC NWS Private Limited
Operational Area C	WA-3-L	Woodside Energy Ltd	Woodside Energy Ltd., BP Developments Australia Pty. Ltd., Chevron Australia Pty Ltd, Shell Australia Pty Ltd, Woodside Energy (North West Shelf) Pty Ltd, Japan Australia LNG (MIMI) Pty. Ltd. and CNOOC NWS Private Limited
	G-10-AP	Woodside Energy Ltd	Woodside Energy Ltd., BP Developments Australia Pty. Ltd., Chevron Australia Pty Ltd; Japan Australia LNG (MIMI) Pty. Ltd. and Shell Australia Pty Ltd

Woodside's mission is to deliver affordable energy solutions and superior outcomes for stakeholders by being society's trusted energy partner. Woodside's strategy is to provide the low cost, lower

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carbon energy our world needs. We have significant opportunities to prosper and grow. Our three pillars, oil, gas and new energy, each have a role to play in our future. Wherever Woodside works, it is committed to living its values of one team, we care, innovation, results matter, and we build and maintain trust.

Since 1984 the company has been operating the landmark Australian project, the North West Shelf (NWS) and it remains one of the world’s premier liquefied natural gas (LNG) facilities. In 2012, Woodside added the Pluto LNG Plant to its onshore operating facilities.

Further information about Woodside can be found at <http://www.woodside.com>.

## 1.5 Structure of the Environment Plan

The EP has been structured to reflect the process and requirements of the Environment Regulations, as outlined in Table 1-4.

**Table 1-4: EP process phases, applicable Environment Regulations and relevant section of EP**

Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
Regulation 34(a): is appropriate for the nature and scale of the activity	Regulation 21: Environmental Assessment  Regulation 22: Implementation strategy for the environment plan  Regulation 24: Other information in the environment plan	The principle of ‘nature and scale’ applies throughout the EP	Section 2 Section 3 Section 4 Section 5 Section 6 Section 6.8
Regulation 34(b): demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable	Regulation 21(1)–21(7): 21(1) Description of the activity 21(2)(3) Description of the environment 21(4) Requirements 21(5) and (6) Evaluation of environmental impacts and risks 21(7) Environmental performance outcomes and standards  Regulation 24(a)–24(c): A statement of the titleholder’s corporate environmental policy A report on all consultations between the titleholder and any relevant person	Set the context (activity and existing environment) Define ‘acceptable’ (the requirements, the corporate policy, relevant persons) Detail the impacts and risks Evaluate the nature and scale Detail the control measures – ALARP and acceptable	Section 1 Section 2 Section 3 Section 4 Section 5 Section 6 Section 6.8
Regulation 34(c): demonstrates that the environmental impacts and risks of the activity will be of an acceptable level			
Regulation 34(d): provides for appropriate environmental performance outcomes, environmental performance standards and measurement criteria	Regulation 21(7): Environmental performance outcomes and standards	Environmental Performance Objectives (EPOs) Environmental Performance Standards (EPSs) Measurement Criteria (MC)	Section 6

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Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
Regulation 34(e): includes an appropriate implementation strategy and monitoring, recording and reporting arrangements	Regulation 22: Implementation strategy for the environment plan	Implementation strategy, including: systems, practices and procedures performance monitoring Oil Pollution Emergency Plan (OPEP) and scientific monitoring ongoing consultation.	Section 6.8
Regulation 34(f): does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property within the meaning of the EPBC Act	Regulation 21(1)–21(3): 21(1) Description of the activity 21(2) Description of the environment 21(3) Without limiting [Regulation 21(2)(b)], particular relevant values and sensitivities may include any of the following: (a) the world heritage values of a declared World Heritage property within the meaning of the EPBC Act; (b) the national heritage values of a National Heritage place within the meaning of that Act; (c) the ecological character of a declared Ramsar wetland within the meaning of that Act; (d) the presence of a listed threatened species or listed threatened ecological community within the meaning of that Act; (e) the presence of a listed migratory species within the meaning of that Act; (f) any values and sensitivities that exist in, or in relation to, part or all of: (i) a Commonwealth marine area within the meaning of that Act; or (ii) Commonwealth land within the meaning of that Act.	No activity, or part of the activity, undertaken in any part of a declared World Heritage property	Section 3 Section 4 Section 6
Regulation 34(g): (i) the titleholder has carried out the consultations required by Section 25 (ii) the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate	Regulation 25: Consultation with relevant authorities, persons and organisations, etc. Regulation 24(b): A report on all consultations between the titleholder and any relevant person	Consultation in preparation of the EP	Section 5
Regulation 34(h):	Regulation 23:	All contents of the EP must comply with the Offshore	Section 1.5

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Criteria for acceptance	Content requirements/relevant regulations	Elements	Section of EP
complies with the Act and the regulations	Details of the Titleholder and nominated liaison. Regulation 24(c): Details of all reportable incidents in relation to the proposed activity.	Petroleum and Greenhouse Gas Storage Act 2006 and the Environment Regulations	Section 6.8

## 1.6 Details of Titleholder and Nominated Liaison

In accordance with Regulation 23 of the Environment Regulations, details of the titleholders, nominated liaison and arrangements for the notification of changes are described below.

### 1.6.1 Titleholders

Woodside Energy Ltd

11 Mount Street

Perth, Western Australia

T: 08 9348 4000

ACN: 63 005 482 986 (Woodside Energy Limited)

### 1.6.2 Nominated Liaison

Andrew Winter

Corporate Affairs Manager

11 Mount Street

Perth, Western Australia

Telephone: 08 9348 4000

Email: [feedback@woodside.com](mailto:feedback@woodside.com)

### 1.6.3 Arrangements for Notifying Change

In accordance with Regulation 23(3) of the Environment Regulations, should the titleholder, titleholder's nominated liaison person, or the contact details for either change, then NOPSEMA will be notified in writing within two weeks or as soon as practicable.

## 1.7 Woodside Management System

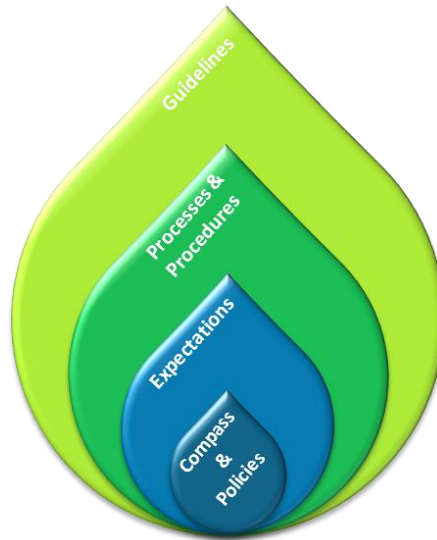
The Woodside Management System (WMS) provides a structured framework of documentation to set common expectations governing how all employees and contractors at Woodside will work. The WMS documentation comprises four elements outlined below and illustrated in Figure 1-1:

- Values and Policies: Set the enterprise-wide direction for Woodside by governing our behaviours, actions, and business decisions and ensuring we meet our legal and other external obligations.
- Expectations: Set essential activities or deliverables required to achieve the objectives of the Key Business Activities and provide the basis for developing processes and procedures.

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- Processes and Procedures: Processes identify the set of interrelated or interacting activities that transforms inputs into outputs, to systematically achieve a purpose or specific objective. Procedures specify what steps, by whom, and when required to carry out an activity or a process.
- Guidelines: Provide recommended practice and advice on how to perform the steps defined in Procedures, together with supporting information and associated tools. Guidelines provide advice on how activities or tasks may be performed, information that may be taken into consideration, or, how to use tools and systems.



**Figure 1-1: The four major elements of the WMS Seed**

The WMS is organised within a business process hierarchy based upon key business activities to ensure the system remains independent of organisation structure, is globally applicable and scalable wherever required. These key business activities are grouped into management, support, and value stream activities as shown in Figure 1-2. The value stream activities capture, generate and deliver value through the exploration and production lifecycle. The management activities influence all areas of the business, while support activities may influence one or more value stream activities.

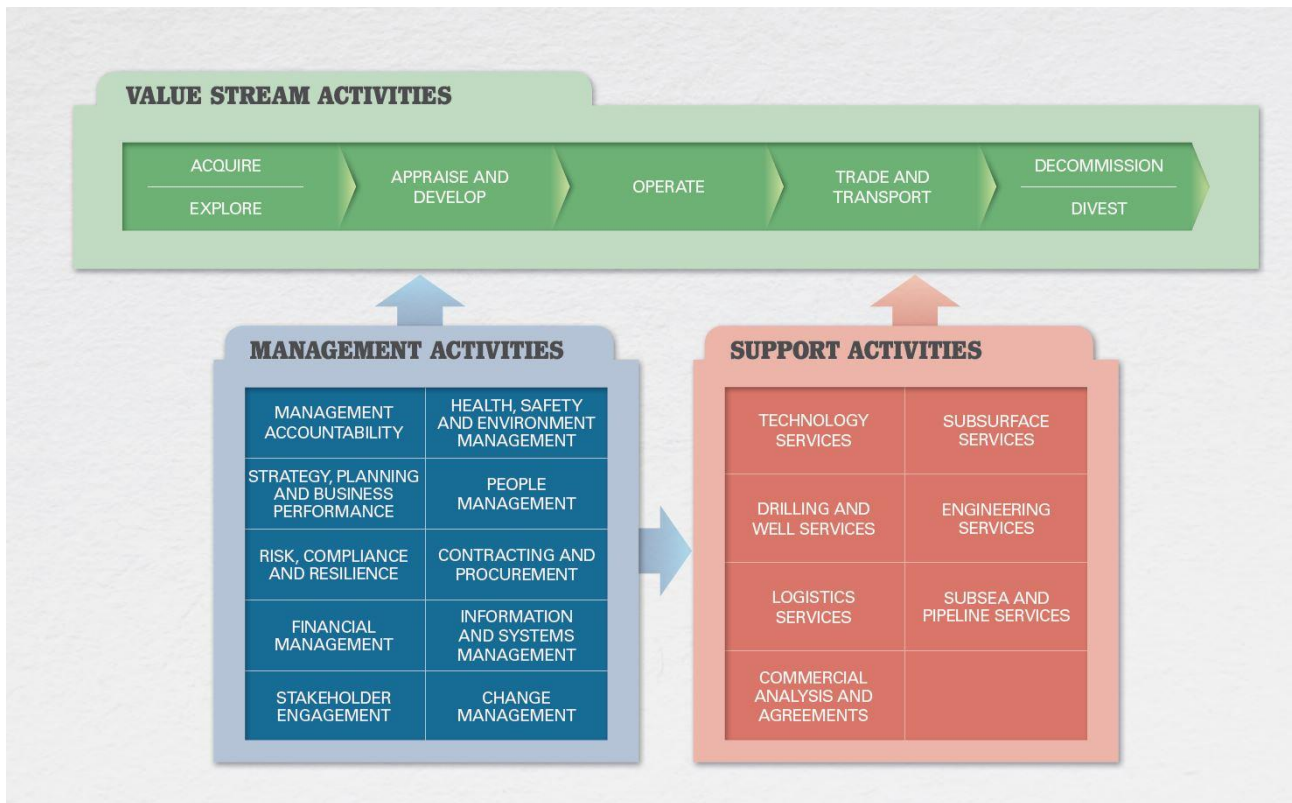


Figure 1-2: The WMS business process hierarchy

### 1.7.1 Environment and Biodiversity Policy

In accordance with Regulation 24(a) of the Environment Regulations, Woodside’s Corporate Environment and Biodiversity Policy is provided in Appendix A of this EP. Please note that the Environment and Biodiversity Policy is reviewed regularly and is updated as required. The Environment and Biodiversity Policy is made available on our website, along with the other Board policies: <https://www.woodside.com/who-we-are/corporate-governance-and-policies>

### 1.8 Description of Relevant Requirements

In accordance with Regulation 21(4) of the Environment Regulations, a description of requirements, including legislative requirements, that apply to the activity and are relevant to the management of risks and impacts of the PGGAP are detailed in Appendix B. The below sections outline environmental legislation applicable to the PGGAP.

#### 1.8.1 Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGGS Act)

The OPGGS Act legislates offshore petroleum and greenhouse gas activities beyond three nautical miles (nm) of the mainland (and islands) to the outer extent of the Australian Exclusive Economic Zone (EEZ) at 200 nm.

#### 1.8.2 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The EPBC Act is administered by the Department of Climate Change, Energy, the Environment and Water (DCCEE) Part 3 of the EPBC Act protects matters of national environmental significance (MNES) across Australia in relation to actions on (or impacting upon) Commonwealth land or waters.

Impacts on matters protected under Part 3 of the EPBC Act from petroleum and greenhouse gas activities undertaken in Commonwealth waters are assessed by NOPSEMA under the Environment Regulations.

As outlined by Section 146(B) of the EPBC Act, separate EPBC approval is not required for this EP. Impacts on matters protected under Part 3 of the EPBC Act from petroleum and greenhouse gas activities undertaken in Commonwealth waters will be assessed by NOPSEMA under the Environment Regulations.

### 1.8.2.1 Recovery Plans and Threat Abatement Plans

Under Section 139(1)(b) of the EPBC Act, the Environment Minister must not act inconsistently with a recovery plan for a listed threatened species or ecological community or a threat abatement plan for a species or community protected under the Act. Similarly, under Section 268 of the EPBC Act:

“A Commonwealth agency must not take any action that contravenes a recovery plan or a threat abatement plan.”

In respect to offshore petroleum greenhouse gas activities in Commonwealth waters, these requirements are implemented by NOPSEMA via the commitments included in the Program. Commitments relating to listed threatened species and ecological communities under the Act are included in the Program Report (Commonwealth of Australia, 2014):

- NOPSEMA will not accept an Environment Plan that proposes activities that will result in unacceptable impacts to a listed threatened species or ecological community.
- NOPSEMA will not accept an Environment Plan that is inconsistent with a recovery plan or threat abatement plan for a listed threatened species or ecological community.
- NOPSEMA will have regard to any approved conservation advice in relation to a threatened species or ecological community before accepting an Environment Plan.

### 1.8.2.2 Australian Marine Parks

Under the EPBC Act, Australian Marine Parks (AMPs) are recognised for conserving marine habitats and the species that live and rely on these habitats. The Director of National Parks (DNP) is responsible for managing AMPs (supported by Parks Australia) and is required to publish management plans for them. Under Section 362, other parts of the Commonwealth Government must not perform functions or exercise powers in relation to these parks that are inconsistent with management plans.

Specific zones within AMPs have been allocated conservation objectives as stated below (International Union for Conservation of Nature (IUCN) Protected Area Category) based on the Australian IUCN reserve management principles outlined in Schedule 8 of the EPBC Regulations 2000:

- Special Purpose Zone (IUCN category VI): managed to allow specific activities through special purpose management arrangements while conserving ecosystems, habitats and native species. The zone allows or prohibits specific activities.
- Sanctuary Zone (IUCN category Ia): managed to conserve ecosystems, habitats and native species in as natural and undisturbed a state as possible. The zone allows only authorised scientific research and monitoring.

- National Park Zone (IUCN category II): managed to protect and conserve ecosystems, habitats and native species in as natural a state as possible. The zone only allows non extractive activities unless authorised for research and monitoring.
- Recreational Use Zone (IUCN category IV): managed to allow recreational use, while conserving ecosystems, habitats and native species in as natural a state as possible. The zone allows for recreational fishing, but not commercial fishing.
- Habitat Protection Zone (IUCN category IV): managed to allow activities that do not harm or cause destruction to seafloor habitats, while conserving ecosystems, habitats and native species in as natural a state as possible.
- Multiple Use Zone (IUCN category VI): managed to allow ecologically sustainable use while conserving ecosystems, habitats and native species. The zone allows for a range of sustainable uses, including commercial fishing and mining where they are consistent with park values.

Operational Area A overlaps the Montebello Islands Marine Park Multiple Use Zone (IUCN Category VI). Petroleum and Greenhouse Gas activities occurring within this zone are approved by a class approval under in accordance with the North Marine Parks Network Management Plan 2018 (Director of National Parks 2018). Conditions of the class approval that are considered relevant to the scope of this EP are provided in **Table 1-5**.

**Table 1-5: Conditions of the Class Approval Relevant to the PPGAP**

Number	Condition	Relevant Section of EP
1	The Approved Actions must be conducted in accordance with: a) an Environment Plan accepted under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009; - b) the EPBC Act; c) the EPBC Regulations d) the North-west Network Management Plan; e) any prohibitions, restrictions or determinations made under the EPBC Regulations by the Director of National Parks; and f) all other applicable Commonwealth and state laws (to the extent those laws are capable of operating concurrently with the laws and instruments described in paragraphs (a) to (e)).	Conditions 1a, b, c and f are met by the submitted EP.  1d the impacts on the marine park values have been considered Section 6.5, 6.6 and 6.7.  1e Consultation has been undertaken with the Director of National Parks and no prohibitions, restrictions or determinations have been made (Section 5)
2	If requested by the Director of National Parks, an Approved Person must notify the Director prior to conducting Approved Actions within Approved Zones.	Section 7.10 describes requirements to notify the DNP prior to activities within the Montebello Multiple Use Zone.
3	If requested by the Director of National Parks, an Approved Person must provide the Director with information relating to undertaking the Approved Actions (or gathered while undertaking the Approved Actions), that is relevant to the Director's management of the Approved Zones.	If requested by the Director of National Parks, information relating to undertaking the Approved Actions (or gathered while undertaking the Approved Actions), that is relevant to the Director's management of the Approved Zones will be provided.

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## 2. ENVIRONMENT PLAN PROCESS

### 2.1 Overview

This section outlines the process taken by Woodside to prepare this EP, including the environmental risk management methodology used to identify, analyse and evaluate environmental impacts and risks that may result from the PGGAP.

### 2.2 Environmental Impact and Risk Management Methodology

The environmental impact and risk management methodology used in this EP is based on Woodside's Risk Management Policy (Appendix A) and aligned with ISO 13001 and the requirements of the Environment Regulations.

### 2.3 Environmental Plan Process

Figure 2-1 illustrates the EP development process. Each element of this process is discussed further in Sections 2.4 to 2.9.

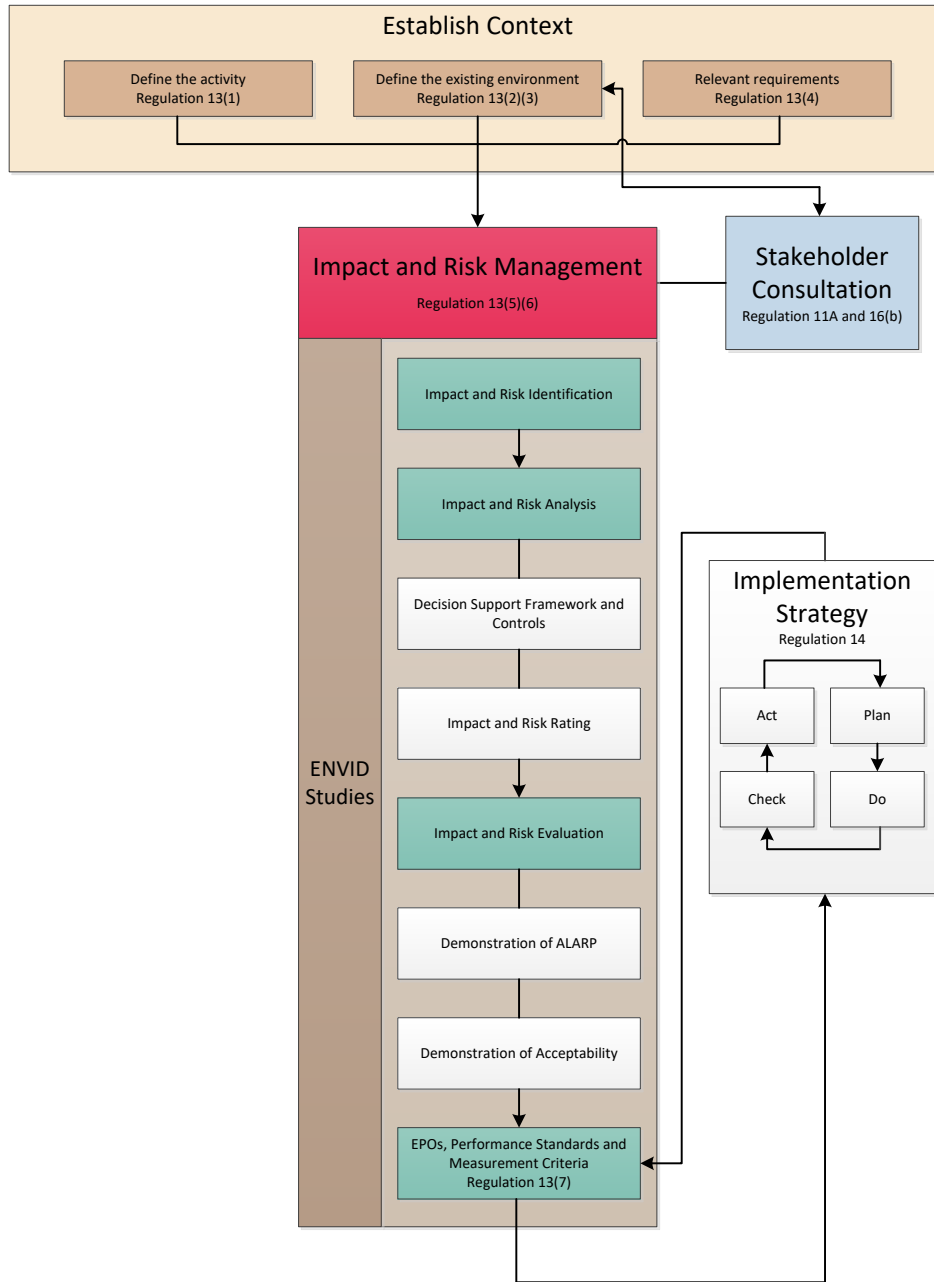


Figure 2-1 Environment Plan development process

## 2.4 Establish the Context

### 2.4.1 Activity Description

The activity description (Section 3) provides a detailed summary of the proposed activities comprising the PGGAP including:

- the location of the activity, including confirmed Operational Area boundary
- general details of the construction and layout of any facilities or infrastructure involved in the activity

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- how the activity is planned to be undertaken, including outlining operational details of the activity, and proposed timeframes.

This allows for the identification of elements of the activity (planned or unplanned) that have the potential to impact on the environment.

## 2.4.2 Existing Environment Description

The environment in the context of this EP refers to the physical, biological, social, economic and cultural features which may be impacted by the activity from planned and unplanned events, including:

- ecosystems and their constituent parts, including people and communities
- natural and physical resources
- the qualities and characteristics of locations, places and areas
- the heritage value of places.

In accordance with Regulation 56(1) of the Environment Regulations, references to the Master Existing Environment, in Appendix I the Nganhurra Operations Cessation EP (hereafter referred to as the Master Existing Environment) have been made throughout this EP. The accepted EP is available on the NOPSEMA website: NOPSEMA EP No: 7105, ID: A938998. The purpose is to describe the existing environment that may be impacted by the activity, directly or indirectly, by planned or unplanned events.

The existing environment (Section 4) has been described with consideration of the nature and scale of the activity (size, type, timing, duration, complexity, and intensity of the activity as established in the activity description (Section 3) to inform potential impacts to receptors from the PGGAP.

## 2.4.3 Relevant Requirements

### 2.4.3.1 Legislation and Other Requirements

Relevant legislation and other requirements that apply to the PGGAP are presented in Section 1.8 and Appendix B. These requirements have been considered through development of this EP.

### 2.4.3.2 Internal Context

The objectives under the Woodside Management System (Section 1.7) define the mandatory performance requirements that apply to all Woodside activities, and its employees and contractors. Where relevant, Woodside internal requirements have been identified as controls to manage impacts and risks managed under this EP. Woodside's Corporate Health, Safety, Environment and Quality Policy is presented in Appendix A.

### 2.4.3.3 External Context

Consultation with relevant persons including authorities, persons, organisations and other stakeholders, as defined under Regulation 25 of the Environment Regulations, has been undertaken as part of the development of this EP. A summary of relevant persons consultation conducted for this EP is presented in Section 5. A copy of the full text correspondence provided by Woodside to relevant persons is provided in Appendix F.

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## 2.5 Impact and Risk Management

### 2.5.1 Impact and Risk Identification

The first step of impact and risk management is to identify all credible sources of environmental impacts and risks, include those directly and indirectly associated with the PGGAP and potential emergency and accidental events. This may include environment impacts and risk that are a consequence of the proposed activity but are not within Woodside's control. In this EP:

- Planned (routine and non-routine) activities have the potential for inherent changes to the environment, are termed environmental 'impacts.'
- Unplanned events, including potential emergency and accidental events which have the potential to result in a change to the environment, are termed environmental 'risks.'

Impacts and risks presented in this EP were identified during an environment identification workshop (ENVID) and informed by recent and historic hazard identification (HAZID) and ENVID workshops for similar activities, relevant requirements (Section 2.4.3), activities described in Section 3, and the existing environment that the PGGAP has a potential to impact (Section 4). The ENVID was undertaken by multidisciplinary teams comprising relevant operational and environmental personnel with sufficient breadth of knowledge, training and experience to reasonably assure that risks and impacts were identified, and their potential environmental consequences assessed.

During the ENVID, environmental impacts and risks were assessed, and controls assigned to each to manage the impact or risk. The ENVID also supported identification of relevant stakeholders to be consulted as part of development of this EP (Section 5). The output of the ENVID, an environmental impacts and risk register, was used as a basis to develop the risk and impact assessment section of this EP (Section 6).

### 2.5.2 Impact and Risk Analysis

Each identified impact and risk were analysed to determine the environmental aspects and receptors which may be affected and assess appropriate controls which should be implemented to manage the impact or risk. Impact and risk analysis conducted for this EP considered previous assessments for similar activities, reviews of relevant studies and activity specific modelling, reviews of past performance, external consultation feedback and a review of the existing environment.

#### 2.5.2.1 Decision Support Framework

To support the impact and risk assessment process and Woodside's determination of acceptability (Section 2.6.2), Woodside's HSE risk management procedures include the use of a decision support framework based on principles set out in the Guidance on Risk Related Decision Making (Oil and Gas UK, 2014). Application of the decision support framework confirms:

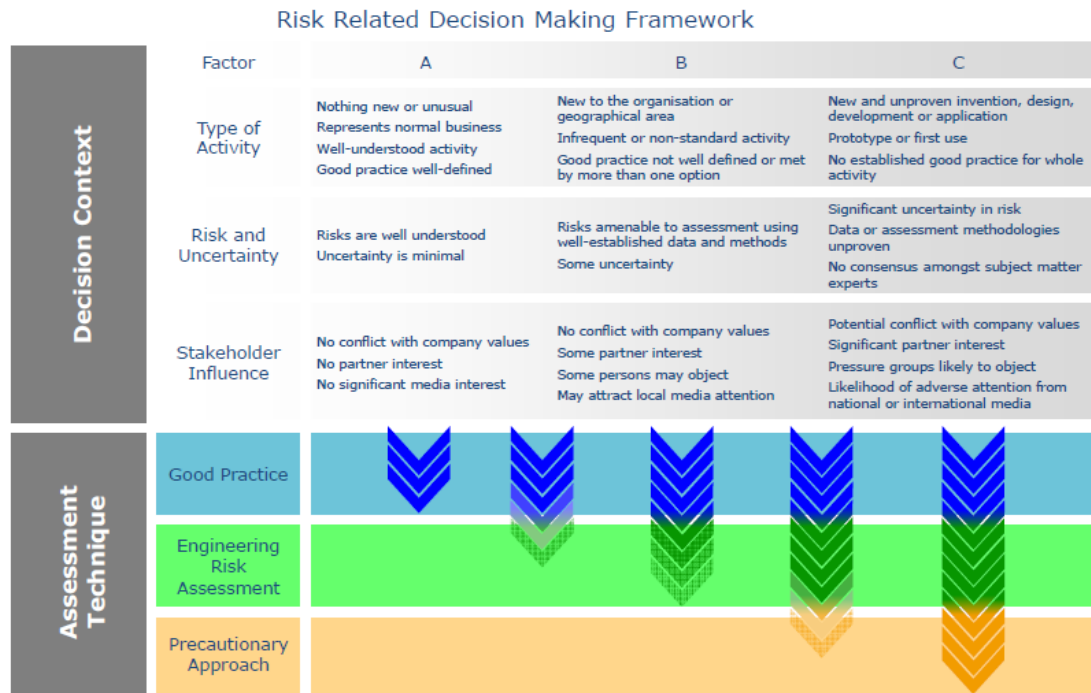
- activities do not pose an unacceptable environmental risk
- appropriate focus is placed on activities where the impact or risk is anticipated to be acceptable and demonstrated to be ALARP
- appropriate effort is applied to manage risks and impacts based on the uncertainty of the risk, the complexity and risk rating (i.e. potential higher order environmental impacts are subject to further evaluation and assessment).

The framework allows a decision type (A, B, or C) to be selected for each impact and risk based on a number of criteria; the decision type is documented in the environmental impacts and risk register.

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A summary of the framework and the criteria and resulting level of assessment for decision type A, B and C are presented in Figure 2-2 and discussed further below.



**Figure 2-2 Risk-related decision-making framework (Oil and Gas UK 2014)**

### 2.5.2.1.1 Decision Type A

Decision type A risks and impacts are well understood and established practice; they are generally recognised as good industry practice and are often embodied in legislation, codes and standards, and use professional judgment.

### 2.5.2.1.2 Decision Type B

Decision type B risks and impacts typically involve greater uncertainty and complexity and are considered higher-order impacts and risks. These impacts and risks may deviate from established practice or have some lifecycle implications and therefore require further engineering risk assessment to support the decision and ensure that the risk is ALARP. Engineering risk assessment tools may include:

- risk-based tools such as cost-based analysis or modelling
- consequence modelling
- reliability analysis
- company values.

### 2.5.2.1.3 Decision Type C

Decision Type C risks and impacts typically have significant risks related to environmental performance. Such risks typically involve greater complexity and uncertainty, therefore requiring the adoption of the precautionary approach. The risks may result in significant environmental impact, significant project risk or exposure, or may elicit negative stakeholder concerns. For these risks or

impacts, in addition to Decision Type A and B tools, company and societal values need to be considered by undertaking broader internal and external consultation as part of the risk assessment process.

#### 2.5.2.1.4 Decision Support Framework Tools

The below framework tools were applied, as appropriate, during the assessment of each impact and risk to help identify control measures based on the selected decision type described above.

- Legislation, Codes and Standards (LCS): identifies the requirements of legislation, codes and standards that are to be complied with for the activity.
- Good Industry Practice (GP): identifies further engineering control standards and guidelines that may be applied by Woodside above that required to meet the LCS.
- Professional Judgement (PJ): uses relevant personnel with the knowledge and experience to identify alternative controls. Woodside applies the hierarchy of control as part of the risk assessment to identify any alternative measures to control the risk.
- Risk-based Analysis (RBA): assesses the results of probabilistic analyses such as modelling, quantitative risk assessment and/or cost–benefit analysis to support the selection of control measures identified during the risk assessment process.
- Company Values (CV): identifies values identified in Woodside’s code of conduct, policies and the Woodside Compass. Views, concerns and perceptions are to be considered from internal Woodside stakeholders directly affected by the planned impact or potential risk.
- Societal Values (SV): identifies the views, concerns and perceptions of relevant stakeholders and addresses relevant stakeholder views, concerns and perceptions.

#### 2.5.2.1.5 Decision Calibration

To determine that the decision type selected and the control measures applied are suitable, the following tools may be used for calibration (i.e. checking) where required:

- LCS/Verification of Predictions: Verification of compliance with applicable LCS and/or good industry practice.
- Peer Review: Independent peer review of PJs, supported by RBA, where appropriate.
- Benchmarking: Where appropriate, benchmarking against a similar facility or activity type or situation that has been deemed to represent acceptable risk.
- Internal Consultation: Consultation undertaken within Woodside to inform the decision and verify company values are met.
- External Consultation: Consultation undertaken to inform the decision and verify societal values are considered.

Where appropriate, additional calibration tools may be selected specific to the decision type and the activity.

#### 2.5.2.2 Control Measures (Hierarchy of Controls)

Once impacts and risks have been identified, the sensitivity of potentially impacted receptors is understood and the decision type has been selected, impact and risk reduction measures (i.e. controls) can be applied. Controls are prioritised and categorised in accordance with the below

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hierarchy of controls, where risk reduction measures at the top of the hierarchy take precedence over risk reduction measures further down:

- Elimination of the impact or risk by removing the hazard.
- Substitution of a hazard with a less hazardous one.
- Engineering Controls include design measures to prevent or reduce the frequency of the impact or risk event, or detect or control the impact or risk event (limiting the magnitude, intensity and duration) such as:
  - Prevention: design measures that reduce the likelihood of a hazardous event occurring
  - Detection: design measures that facilitate early detection of a hazardous event
  - Control: design measures that limit the extent/escalation potential of a hazardous event
  - Mitigation: design measures that protect the environment if a hazardous event occurs
  - Response Equipment: design measures or safeguards that enable clean-up/response after a hazardous event occurs.
- Procedures and Administration includes management systems and work instructions used to prevent or mitigate environmental exposure to hazards.
- Emergency Response and Contingency Planning includes methods to enable recovery from the impact of an event (e.g. protection barriers deployed near the sensitive receptor).

### 2.5.3 Impact and Risk Classification

Environmental impacts and risks are assessed to determine their potential impact significance level or risk rating, which can then be evaluated, along with other criteria, against the ALARP and acceptability requirements under the Environment Regulations. The full process for impact and risk classification is described in the subsections below.

#### 2.5.3.1 Impact Classification

Impacts are classified by significance level in accordance with the Environmental Impact Assessment Guideline and Tool. Table 2-1 describes the possible significance levels for an identified impact. Where multiple receptors have the potential to be impacted, the worst-case impact significance level is carried into the final impact assessment and evaluation.

**Table 2-1: Determination of impact significance level**

Impact significance level
Catastrophic (A) – Applicable limits or standards are substantially exceeded and/or catastrophic or major magnitude impacts are expected to receptors of medium/high or high sensitivity respectively.
Major (B) – Applicable limits or standards are exceeded and/or moderate, major or catastrophic magnitude impacts are expected to occur to receptors of high, medium or low sensitivity respectively.
Moderate (C) – Impacts are close to applicable limits or standards, or within standards but with potential for occasional exceedance. Minor, moderate or major magnitude impacts are

predicted to occur to receptors of high, medium or low sensitivity respectively.

Minor (D) – Impact magnitude is within applicable standards but is considered to have significance. Slight, minor or moderate impacts are predicted to occur to receptors of high, medium or low sensitivity respectively.

Slight (E) – The receptor will experience a noticeable effect, but the impact magnitude is sufficiently small and well within applicable standards, and/or the receptor is of low value.

Negligible (F) – The receptor will essentially not be affected.

### 2.5.3.2 Risk Classification

Risks are classified in accordance with the Woodside’s Risk Assessment Guideline and HSE Risk Assessment Guideline, as well as the Environmental Risk Assessment Tool and Woodside Risk Matrix. The steps for risk classification are described in the subsections below.

#### 2.5.3.2.1 Determine the Risk Consequence Level

Table 2-2 describes the possible environmental and social-cultural consequence levels for each identified risk. Where multiple receptors have the potential to be impacted, the worst-case consequence level is carried into the final risk assessment and evaluation.

**Table 2-2: Woodside risk matrix (environment and social and cultural) consequence descriptions**

Environment	Social and cultural	Consequence level
Catastrophic, long-term impact (>50 years) on highly valued ecosystem, species, habitat or physical or biological attribute.	Catastrophic, long-term impact (>20 years) to a community, social infrastructure or highly valued area/item of international cultural significance.	A
Major, long term impact (10–50 years) on highly valued ecosystem, species, habitat or physical or biological attribute.	Major, long-term impact (5–20 years) to a community, social infrastructure or highly valued area/item of national cultural significance.	B
Moderate, medium-term impact (2–10 years) on ecosystem, species, habitat or physical or biological attribute.	Moderate, medium term impact (2–5 years) to a community, social infrastructure or highly valued area/item of national cultural significance.	C
Minor, short-term impact (1–2 years) on species, habitat (but not affecting ecosystem function), physical or biological attribute.	Minor, short-term impact (1–2 years) to a community or highly valued area/item of cultural significance.	D
Slight, short-term impact (<1 year) on species, habitat (but not affecting ecosystem function), physical or biological attribute.	Slight, short-term impact (<1 year) to a community or area/item of cultural significance.	E
No lasting effect (<1 month). Localised impact not significant to environmental receptor.	No lasting effect (<1 month). Localised impact not significant to area/item of cultural significance.	F

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### 2.5.3.2.2 Select the Likelihood Level

Table 2-3 describes the possible likelihood levels for each identified risk. Likelihood is determined based on the chance of the selected worst-case consequence occurring.

**Table 2-3: Woodside risk matrix likelihood levels**

Likelihood description						
Frequency	1 in 100,000–1,000,000 years	1 in 10,000–100,000 years	1 in 1,000–10,000 years	1 in 100–1,000 years	1 in 10–100 years	>1 in 10 years
Experience	Remote: Unheard of in the industry	Highly Unlikely: Has occurred once or twice in the industry	Unlikely: Has occurred many times in the industry but not at Woodside	Possible: Has occurred once or twice in Woodside or may possibly occur	Likely: Has occurred frequently at Woodside or is likely to occur	Highly Likely: Has occurred frequently at the location or is expected to occur
Likelihood level	0	1	2	3	4	5

### 2.5.3.2.3 Calculate the Risk Rating

The risk rating is derived from the consequence and likelihood levels determined above, in accordance with the Woodside Risk Matrix summarised in Table 2-4. This risk rating is used as an input into the risk evaluation process and ultimately for prioritising further risk reduction measures. Once each risk is treated to ALARP, the risk rating articulates the ALARP baseline risk in the environmental impacts and risk register.

**Table 2-4: Woodside risk matrix determination of risk rating**

Consequence level	Likelihood level						Risk rating
	0	1	2	3	4	5	
A	A0	A1	A2	A3	A4	A5	Severe
B	B0	B1	B2	B3	B4	B5	Very High
C	C0	C1	C2	C3	C4	C5	High
D	D0	D1	D2	D3	D4	D5	Moderate
E	E0	E1	E2	E3	E4	E5	Low
F	F0	F1	F2	F3	F4	F5	

## 2.6 Impact and Risk Evaluation

In accordance with Environment Regulation 34(a), 34(b), 34(c) and 21(5)(b), Woodside applies the following process to evaluate impacts and risks and demonstrate ALARP and acceptability for environmental impacts and risks, appropriate to the nature and scale of each impact or risk.

### 2.6.1 Demonstration of ALARP

The descriptions in Table 2-5 articulate how Woodside demonstrates that each impact and risk identified within this EP are ALARP.

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**Table 2-5: Summary of Woodside’s criteria for ALARP demonstration**

Risk	Impact	Decision type
Low and moderate (below C level consequence)	Negligible, slight, or minor (D, E or F)	A
Woodside demonstrates these impacts, risks and decision types are reduced to ALARP if they meet: legislative requirements industry codes and standards applicable company requirements and where further effort towards reducing risk (beyond employing opportunistic measures) is not reasonably practicable without sacrifices grossly disproportionate to the benefit gained.		
High, very high or severe (C+ consequence risks)	Moderate and above (D, E or F)	B and C
Woodside demonstrates these higher-order impacts, risks and decision types are reduced to ALARP where the criteria for lower order risks and impacts have been met and it can be shown that RBA has been employed and societal concerns are accounted for.		

## 2.6.2 Demonstration of Acceptability

The descriptions in Table 2-6 articulate how Woodside demonstrates how each impact and risk identified within this EP are Acceptable.

**Table 2-6: Summary of Woodside’s criteria for acceptability**

Risk	Impact	Decision type
Low and moderate	Negligible, slight, or minor (D, E or F)	A
Woodside demonstrates these lower order impacts, risks and decision types are ‘broadly acceptable’ if they meet the ALARP requirements for lower order risks and impacts described above (Table 2-5).		
High, very high or severe	Moderate and above (D, E or F)	B and C
Woodside demonstrates these higher order impacts, risks and decision types are ‘acceptable’ if it can be demonstrated that the predicted levels of impact or risk, are: managed to ALARP (as described in Section 2.6.1), and meet the following criteria, appropriate to the nature and scale of each impact and risk: Impact/risk does not contravene relevant principles of ESD, as defined under the EPBC Act. Internal context – the proposed controls and consequence/risk level are consistent with Woodside policies, procedures and standards. External context – stakeholder expectations and feedback have been considered (Section 5). Other requirements – the proposed controls and consequence/risk level are consistent with national and international industry standards, laws and policies, and applicable plans for management and conservation advice, conventions, and significant impact guidelines (e.g. for MNES) have been considered. Where there are significant complexities in assessing and managing impacts to different receptors and for demonstrating how these impacts are acceptable (e.g. significant stakeholder concern for specific receptors, lack of consensus of appropriate controls or standards), acceptability may be demonstrated separately for key receptors. This is not applicable for risks, given the consequence of an unplanned risk event occurring may not be acceptable and, therefore, acceptability is demonstrated in the context of the residual likelihood of an event occurring.		

## 2.7 Recovery Plan and Threat Abatement Plan Assessment

To support the demonstration of acceptability, a separate assessment is undertaken to demonstrate that the EP is not inconsistent with any relevant recovery plans or threat abatement plans (Section 1.8.2.1). The steps in this process are:

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- identify relevant listed threatened species and ecological communities (Section 4.5).
- identify relevant recovery plans and threat abatement plans (Section 3.2 of the Master Existing Environment).
- list all objectives and (where relevant) the action areas of these plans and assess whether these objectives/action areas apply to government, the Titleholder, and the PGGAP (Section 6.7).
- for those objectives/action areas applicable to the PGGAP, identify the relevant actions of each plan, and evaluate whether impacts and risks resulting from the activity are clearly not inconsistent with that action (Section 6.7).

## 2.8 Environmental Performance Outcomes, Standards and Measurement Criteria

For each evaluated impact and risk, controls adopted during the ENVID and through demonstrating ALARP are paired with activity-specific environmental performance outcomes (EPO), performance standards (PS) and measurement criteria (MC). EPOs, PS and MC form the basis for monitoring and auditing and allow Woodside's environmental performance to be measured through the implementation of this EP to ensure impacts and risks will be managed to a level that is ALARP and acceptable. EPOs, PS and MC are defined for each identified credible impact and risk in Section 6.

## 2.9 Implement, Monitor, Review and Reporting

The implementation strategy describes the specific measures and arrangements to be implemented for the duration of the EP (Section 6.8). The strategy is based on the principles of AS/NZS ISO 14001 Environmental Management Systems, and demonstrates:

- control measures are effective in reducing the environmental impacts and risks of the PGGAP to ALARP and acceptable levels
- EPOs and EPSs set out in the EP are met through monitoring, recording, auditing, managing non-conformance, and reviewing
- all environmental impacts and risks of the PGGAP are periodically reviewed in accordance with Woodside's risk management procedures
- roles and responsibilities are clearly defined, and personnel are competent and appropriately trained to implement the requirements set out in this EP, including in emergencies or potential emergencies
- arrangements are in place for oil pollution emergencies, to respond to and monitor impacts
- environmental reporting requirements are met, including 'reportable incidents'
- appropriate consultation is undertaken throughout the activity.

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### 3. DESCRIPTION OF THE ACTIVITY

#### 3.1 Overview

This section has been prepared in accordance with Regulation 21(1) of the Environment Regulations and describes the activities to be undertaken as part of the PGGAP under this EP. It includes the location of the activities, operational details and additional information relevant to considering environmental risks and impacts.

#### 3.2 Project Overview

Woodside plans to collect high resolution geotechnical and geophysical data within the Operational Areas. This data will inform the design of flowlines and umbilical routes, design of subsea structure foundation locations and planning for mobile offshore drilling unit (MODU) anchoring or jack-up location associated with the GWA infill development, P&A activities and future exploration activities:

Table 3-1 provides an overview of the PGGAP, including location, water depths and key activities.

**Table 3-1: Petroleum and Greenhouse Gas Activity Program Overview**

Item	Description		
Permit Titles	Operational Area A WA-7-R WA-56-L WA-57-L WA-58-L WA-23-L WA-24-L WA-6-L WA-5-L	Operational Area B WA-1-L WA-2-L	Operational Area C WA-3-L G-10-AP
Location	North West Shelf		
Water depth	20-190m		
Vessels	At least 2 survey vessels (Section 3.6)		
Key activities	Geophysical survey(s) within the Operational Areas using the following survey equipment: <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder (MBES),</li> <li>• Side Scan Sonar (SSS),</li> <li>• Magnetometer,</li> <li>• Sub Bottom Profiler (SBP) (Boomer/Sparker and/or Chirp)</li> </ul> Geotechnical survey(s) within the Operational Areas using the following survey equipment: <ul style="list-style-type: none"> <li>• Box cores/grab sample</li> <li>• Piston/Gravity/Vibro cores</li> <li>• Drilling core holes</li> <li>• Cone Penetrometer Test (PCPT)</li> </ul>		

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### 3.3 Location

The petroleum and greenhouse gas activity program is proposed to be located on the Northwest shelf adjacent to Woodside's GWA platform and North Rankin complex, approximately 32 km from the nearest shoreline (Montebello Islands) and approximately 123 km to Dampier on mainland WA.

The activities will occur within multiple permit areas as shown in Figure 3-1 within the 3 Operational Areas further defined in Section 3.4.

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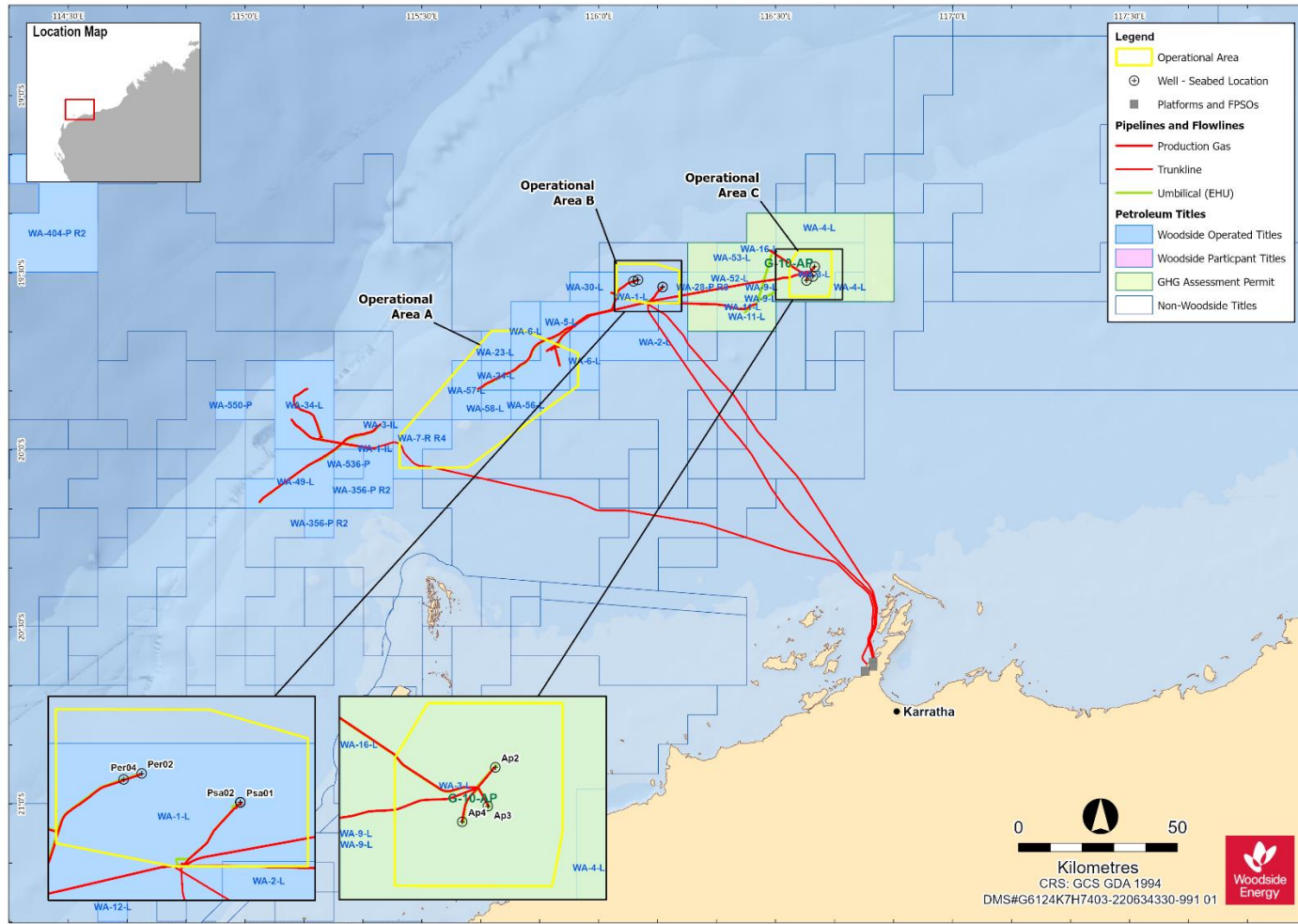


Figure 3-1: Location of the PGGAP

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### 3.4 Operational Areas

The PGGAP will occur in three Operational Areas, Operational Area A (1340 km<sup>2</sup>), Operational Area B (213 km<sup>2</sup>) and Operational Area C (171 km<sup>2</sup>) (Figure 3-1). The coordinates of each Operational Area are as follows:

- ≈ 115.67° E 19.85° S Operational Area A
- ≈ 116.13° E 19.54° S Operational Area B
- ≈ 116.60° E 19.50° S Operational Area C

As the exact location of the proposed surveys within each Operational Area may vary during the PGGAP, a conservative approach has been employed to assess risks and impacts; and the size of each Operational Area has been considered to include the potential variations to survey locations. This approach considered the existing environment of the entirety of each of the Operational Areas (along with the environment potentially impacted by the credible hydrocarbon spill scenarios) to provide context for the risk assessment (Section 4).

The Operational Areas for the activity includes a 500 m safety exclusion zone around the survey vessels to manage vessel movements. The 500 m safety exclusion zone is under the control of the Person in Charge.

Vessels transiting to and from the Operational Areas are outside the scope of this EP.

*To the extent that any activities carried out in parts of the Operational Areas not included in the area of Woodside's existing titles, Woodside will obtain the relevant authorisations and will carry out activities in those areas in accordance with the authorisations. In relation to GHG titles, Woodside will comply with the relevant legislation and obtain the relevant authorisations as appropriate.*

### 3.5 Timing

The PGGAP is anticipated to commence in Q1 2024 and is forecast a total of approximately 18 weeks to complete with vessels operating 24 hours a day. It is possible that the PGGAP will not be undertaken in a single campaign and the approximately 18-week activity may be split over the five-year period of this EP. Timing and duration may be subject to change due to project vessel availability, unforeseen circumstances and weather.

The PGGAP could also occur at any time throughout the year and therefore this EP has assessed risks relevant to geophysical and geotechnical survey activities in all seasons to provide operational flexibility on project schedule changes and project vessel availability.

### 3.6 Survey Vessels

At least two project vessels will be required to complete the activities associated with the PGGAP. This includes one that is capable of conducting geophysical surveys, such as a multi-purpose project survey vessel, and one to undertake geotechnical surveys such as a geotechnical drilling vessel. There may also be times where a smaller geotechnical survey vessel is required to undertake surveys along proposed pipeline routes. Typical details of these vessels are provided in Table 3-2.

**Table 3-2: Typical survey vessel parameters**

Purpose	Length (OA)	Maximum Persons Onboard	Fuel Type	Largest tank Size
Geophysical survey	55 m	30	Marine Diesel	182 m <sup>3</sup>
Geotechnical survey <sup>1</sup>	85 m	60	Marine Diesel	182 m <sup>3</sup>

It is feasible, although unlikely, two geotechnical vessels will be in the Operational Areas at any one time, with one undertaking box core and CPT sampling, and another the borehole sampling.

Geotechnical vessels may hold station in the Operational Areas using dynamic positioning with DPS Class 2 capability as a minimum. No anchoring is planned within the Operational Area.

All survey vessels are required to pass a Woodside Marine Assurance Inspection Audit (to audit compliance with safety management requirements and marine compliance laws) and operate in accordance with Woodside’s HSE policies. A typical geotechnical survey vessel is shown in Figure 3-2.

Vessels will mobilise and demobilise either from international waters or domestically from within Australia and will comply with the relevant maritime safety requirements and marine order requirements as appropriate for the vessel. Port calls may be required, to change crew or reconfigure the vessel to use different survey equipment (for example between the completion of the geophysical and commencement of the geotechnical surveys). No bunkering at sea will be performed as part of the PGGAP. Any bunkering would be performed during a port call, out of the scope of this EP.

Vessels associated with the PGGAP will comply with this EP when they are within the Operational Areas. When vessels are transiting to or from the Operational Areas they will comply with applicable maritime regulations, laws and other requirements.

<sup>1</sup> A vessel used to deploy subsea geotechnical investigation drilling equipment is likely to have similar characteristics. If a separate vessel is used for the pipeline investigation, then this vessel is likely to be smaller in size and capacity.

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Figure 3-2: Typical geotechnical investigation vessel

### 3.6.1 Other Support

No other support activities, including helicopter transfers are applicable to the PGGAP.

## 3.7 Survey Activities

### 3.7.1 Geophysical Surveys

A geophysical survey is the systematic collection of geophysical data. Survey methods used for the geophysical surveys in this PGGAP involve acoustic measurements to characterise the seabed features, seabed morphology and the sub-seabed stratigraphy. A variety of geophysical systems described below may be used depending on seabed soil conditions and required penetration and resolution. Some of the systems act as the transmitter and receiver; others have a separate transmitter and a short hydrophone streamer as a receiver. The industry accepted techniques are outlined in Table 3-3 and described in the following sections. These will be adopted to achieve the objectives of the geophysical survey scope.

The geophysical survey techniques may occur anywhere within the Operational Areas. Geophysical sources emit sound at a variety of intensities and frequencies depending on the resolution of information required. A summary of estimated source levels and operating frequencies for the proposed geophysical survey techniques is provided in Table 3-3.

**Table 3-3 Acoustic source characteristics of geophysical survey techniques**

Geophysical survey technique	Estimated source sound pressure level ( $L_{S,P}$ ) (dB re 1 $\mu$ Pa m/ dB re 1 $\mu$ Pa @ 1 m)	Estimated source peak pressure level ( $L_{S,pk}$ ) (dB re 1 $\mu$ Pa m/ dB re 1 $\mu$ Pa @ 1 m)	Estimated sound exposure level ( $L_{S,E}$ ) (dB re 1 $\mu$ Pa <sup>2</sup> .s @1m)	Proposed Frequency range (kHz)
MBES	210–245 <sup>1,2,3</sup>	NA	173-188 <sup>2</sup>	The Petroleum and Greenhouse Gas Activity Program is expected to use approximately 150-300 kHz (hull mounted). Using AUV may be higher frequency due to proximity to seabed.
SSS	200–235 <sup>1,2</sup>	NA	200 <sup>2</sup>	75–900 <sup>1,2</sup>
SBP – Chirp	192-210 <sup>2,4</sup>	198-218 <sup>2,4</sup>	171-193 <sup>2,4</sup>	2–30 <sup>1,2,4</sup>
SBP – Boomer	200–206 <sup>2,4</sup>	210-217 <sup>2,4</sup>	175-180 <sup>2,4</sup>	0.2–16 <sup>2,4</sup>
SBP – Sparker	200-220 <sup>1</sup>	N/A	N/A	0.05–4 <sup>1</sup>
USBL	184–202 <sup>1</sup>	N/A	N/A	19–34 <sup>1</sup>
<sup>1</sup> Jimenez-Arranz et al (2017) <sup>2</sup> Zykov (2013) <sup>3</sup> MacGillivray et al. (2013) <sup>4</sup> McPherson and Wood (2017)				

**3.7.1.1 Multibeam Echo Sounder**

Multibeam echo sounders (MBES), like other sonar systems, transmit sound energy and analyse the return signal (echo) from the seabed or other objects. The sound waves are transmitted from a transducer mounted on the hull of the survey vessel or Autonomous Underwater Vehicle (AUV) to produce a fan-shaped coverage of the seabed. The coverage area on the seabed depends on the equipment used, the settings of the equipment and the depth of the water. Typically, coverage is two to four times the water depth (below the transducer). A summary of sound emitted from MBES, including proposed operating frequency and source intensity, is provided in Table 3-3.

**3.7.1.2 Side Scan Sonar**

Side scan sonar (SSS) is a hydro-acoustic technique. The sensor array comprises a set of transducers which are mounted on either side of a towfish or AUV. The transducers produce a high frequency pulse of sound energy which is formed into the shape of a fan that sweeps the seabed. The return signal (echo) comprises acoustic energy reflected from the seabed and waterborne discontinuities. The strength of the return echo is continuously recorded, creating an ‘image’ of the

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ocean bottom which can be used to indicate the texture of the seabed. A summary of sound emitted from SSS, including proposed operating frequency and source intensity, is provided in Table 3-3.

### 3.7.1.3 Magnetometer

A magnetometer is used to detect ferrous materials on or buried under the seabed by measuring small variations in the earth's magnetic field. This is used to detect anchors, chains, buried pipelines or cables or identify other magnetic anomalies that may require further investigation. The magnetometer is a passive sensor that does not rely on generating a magnetic field but only measures perturbations in the ambient total field strength in the environment. The sensor is typically towed behind the side scan sonar.

### 3.7.1.4 Sub Bottom Profiler

SBP are devices that convert electrical energy into acoustic energy. They produce an acoustic profile which extends from the seabed down to the limit of penetration. Geophysical surveys use a variety of profilers which operate at differing energy levels and are characterised by different dominant frequencies. Higher energy sources are needed to transmit the acoustic signals to greater depth, but they have correspondingly lower dominant frequencies which reduce the resolution of the resultant record. Hence, the type of profiler used depends on the nature of the substrate, penetration and resolution required. The acoustic sources for a SBP associated with this PGGAP may include the following:

#### ***Chirp Sub Bottom Profiler***

During the geophysical survey, the chirp SBP system may be used. This system emits a sweep of frequency signals (transmitted electromagnetic signals over a period of time). The chirp system also acts as a receiver for the reflected signal. The chirp SBP may be hull mounted, contained in a towfish or fitted to an AUV.

#### ***Boomer Sub Bottom Profiler***

A boomer SBP system may be used during the geophysical survey. The system consists of two spatially separated units; the boomer plate acoustic source mounted within a catamaran, and a hydrophone receiver. These are both towed on the surface immediately astern of the vessel, usually on opposite sides.

The boomer plate is an electro-mechanical transducer comprising an insulated electrical coil adjacent to a metal plate. A shipboard power supply generates an electrical pulse which is discharged to the electrical coil causing a magnetic field to repel a metal plate. This energetic motion generates a broad band, high amplitude impulsive acoustic signal in the water column that is directed vertically downward.

The hydrophone system consists of individual hydrophone elements located within neutrally buoyant synthetic hydrocarbon filled tubing (approximately 5 L). They typically contain eight to twelve hydrophone elements evenly spaced in a 2.5 to 4.5 m long, 25 mm diameter tube.

#### ***Sparker Sub Bottom Profiler***

A sparker SBP system may be used during the geophysical survey. The system consists of two spatially separated units; the sparker array acoustic source mounted within a catamaran and a hydrophone receiver. These are both towed on the surface immediately astern of the vessel, usually on opposite sides.

The sparker is an acoustic source which uses an electrical arc which momentarily vaporises water between positive and negative electrodes, producing an omni-directional acoustic pulse.

The hydrophone system consists of individual hydrophone elements located within neutrally buoyant synthetic hydrocarbon filled tubing (approximately 5 L). They typically contain 8 to 12 hydrophone elements evenly spaced in a 2.5 to 4.5 m long, 25 mm diameter tube.

### 3.7.1.5 Geophysical Equipment Deployment

A survey vessel together with a towfish and/or towed catamaran (Figure 3-3) will be used to deploy geophysical sources and collect data. Proposed deployment methods are summarised in Table 3-4 and illustrated in Figure 3-3 and Figure 3-4. Depending on the method of deployment, geophysical sources can sit at a variety of locations within the water column (Table 3-5), noting that only one type of deployment will be used.

**Table 3-4: Proposed geophysical equipment deployment method**

Geophysical survey technique	AUV	Towfish	Towed Catamaran	Hull mounted
MBES	✓			✓
SSS	✓	✓*		
USBL	✓**	✓**		✓**
SBP – Chirp	✓	✓		✓
SBP – Boomer			✓	
SBP – Sparker			✓	

\* Note - Towfish can also attach several acoustic sources including Side Scan Sonar or CHIRP.

\*\* USBL has a hull mounted or towed transceiver

**Table 3-5: Proposed geophysical equipment deployment depth**

Geophysical survey technique	AUV	Towfish	Towed Catamaran	Hull mounted
Deployment Depth	35 m above Seabed (nominal)	10-20 m above seabed	Within 1 m of surface	Dependent on draft of vessel (approximately 10 m)

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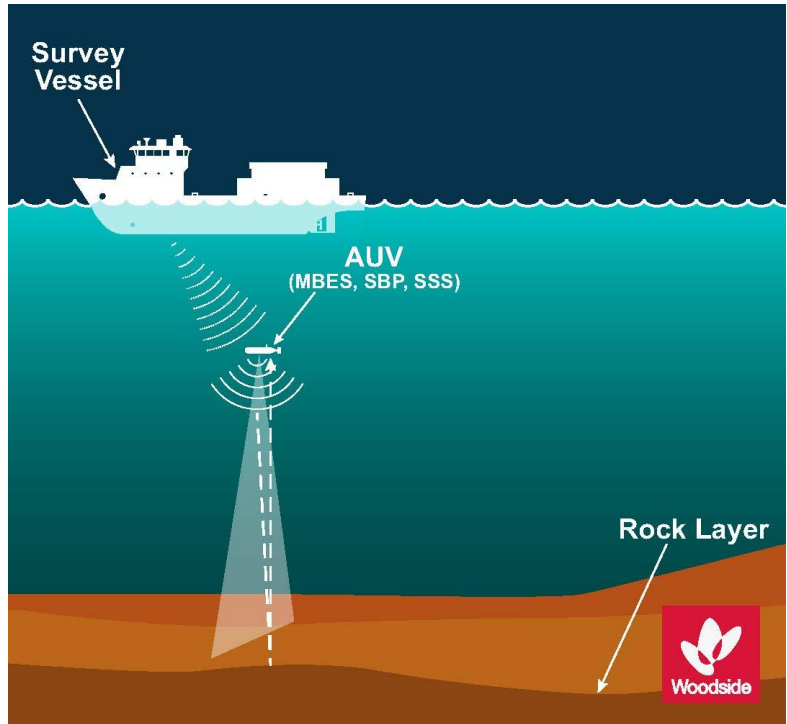


Figure 3-3: Deployment of geophysical equipment via AUV

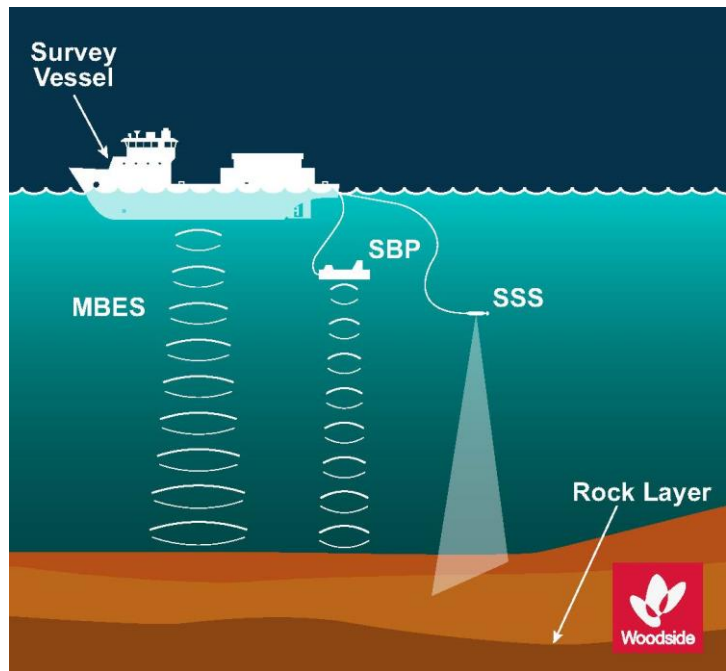


Figure 3-4: Deployment of geophysical survey equipment from a survey vessel

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### 3.7.2 Geotechnical Survey

The geotechnical surveys will be performed using standard industry equipment and will consist of *in situ* testing and the recovery of soil/rock samples at locations within the Operational Areas to ground truth existing geophysical data and provide geotechnical data for engineering design.

The geotechnical survey methods that are expected to be used during the PGGAP include but are not limited to:

- Penetration testing
- Cored borehole
- Piston core sampling
- Box core sampling.

Each of these methods are described in the following subsections.

#### 3.7.2.1 Penetration Testing

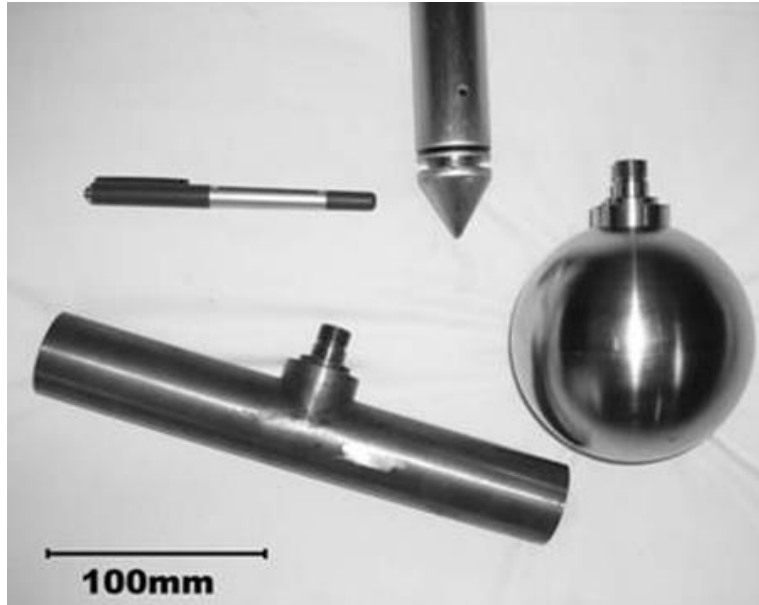
Penetration testing involves pushing a penetrometer (probe) into the seabed at a constant rate of penetration, and continuously measuring resistance, friction and pore pressure. The cone penetration test (PCPT/CPTU) is performed most frequently. In suitable seabed sediments, the cone penetrometer can be replaced with a T-bar penetrometer or Ball penetrometer to continuously measure resistance, friction and pore pressure during both the push-in and pull-out phases of the test. Figure 3-5 shows the probes that may be used for the PGGAP.

When the required final penetration depth is reached, all equipment is withdrawn from the seabed. A small hole will remain in the seabed, which will eventually collapse and infill as surface sediments move in the ocean current. The hole remaining in the seabed immediately after test completion will depend on the geometry of the type of penetrometer used:

- Piezocone penetrometers: about 25 mm–40 mm (diameter).
- T-bar penetrometers: a slot of about 40 mm x250 mm.
- Ball penetrometers: about 56 mm–133 mm (diameter).

PCPT testing will generally be undertaken to depths of between 3 m and 35 m below the mudline. Sub-seabed conditions in Operational Areas may include cemented layers that prevent the penetration of the PCPT equipment to the required depth. Depending on the depth and thickness of any cemented layer, it may be necessary to continue the PCPT in order to investigate the conditions below. This would be done by drilling through the cemented layer and the diameter of the drilled hole would depend on the type of equipment utilised (80 mm – 125 mm) The section within a borehole subject to drilling would probably remain open but depending on the layer depth below seabed may eventually infill with the movement of surface sediments in ocean current.

PCPT testing may be undertaken using a remotely operated subsea rig positioned on the seabed and capable of continuously driving the probe to target depth or from a remotely operated subsea drilling rig as described in Section 3.7.2.2. Alternatively, the testing may be undertaken from the surface on a vessel, as described in Section 3.7.2.2.



**Figure 3-5: Examples of piezocone, T-bar and ball penetrometers**

### 3.7.2.2 Cored Borehole

Some boreholes will be required at the proposed rig sites to recover physical samples at greater depths than can be achieved using piston core sampling (Section 3.7.2.3) and especially where significant layers of cemented material are present. The equipment used to drill each borehole could involve drilling from the sea surface on a vessel (Figure 3-2), where drilling takes place through a riser spanning the water depth and which is slotted into a base frame located on the seabed (Figure 3-6). The Geotechnical drilling vessels generally have a length of less than 100 m and always have dynamic positioning capability.

In the first case, the borehole is advanced by either push sampling (thin or thick-walled tubes) at intervals or PCPT testing (Section 3.7.2.1), each interval followed by drilling to each completed depth using a bit of diameter approximately 125 mm. Where cemented layers are encountered, coring equipment is used to recover representative samples for those layers. In some cases, depending on the strength of the formation, the borehole may need to be stabilised by running sufficient casing to span the weak formation. Drilling mud is generally used in the process in order to lubricate the drill bit, keep the borehole stable and hopefully preclude the necessity for casing. Sea water is the primary constituent of geotechnical drilling fluids. In suitable seabed sediments the base fluid (sea water) can be used as the drilling fluid. However, often one or more drilling fluid additives are mixed with the base fluid to produce a drilling fluid with the appropriate properties for the seabed conditions. The geotechnical survey would involve discharge of a small amount of drill cuttings and associated fluids to the marine environment at seabed level. The drill fluid additives will only be known after the contract is awarded and the specific type of seabed coring is confirmed. However, all drilling fluid products proposed by the geotechnical contractor will be assessed by Woodside using the Chemical Selection and Assessment Environment Guideline prior to approval for use.

The second case involves deploying a self-contained drilling unit to the seafloor rather than using a dedicated vessel. In this scenario there is no drill pipe between the vessel and the seafloor and only a combined lifting wire and umbilical runs from the drill unit up to the vessel. Apart from being remote from the vessel this is a similar operation where the drilling unit can provide either core samples or CPT investigations using a combination of drilling and pushing the CPT probe through the drill pipe.

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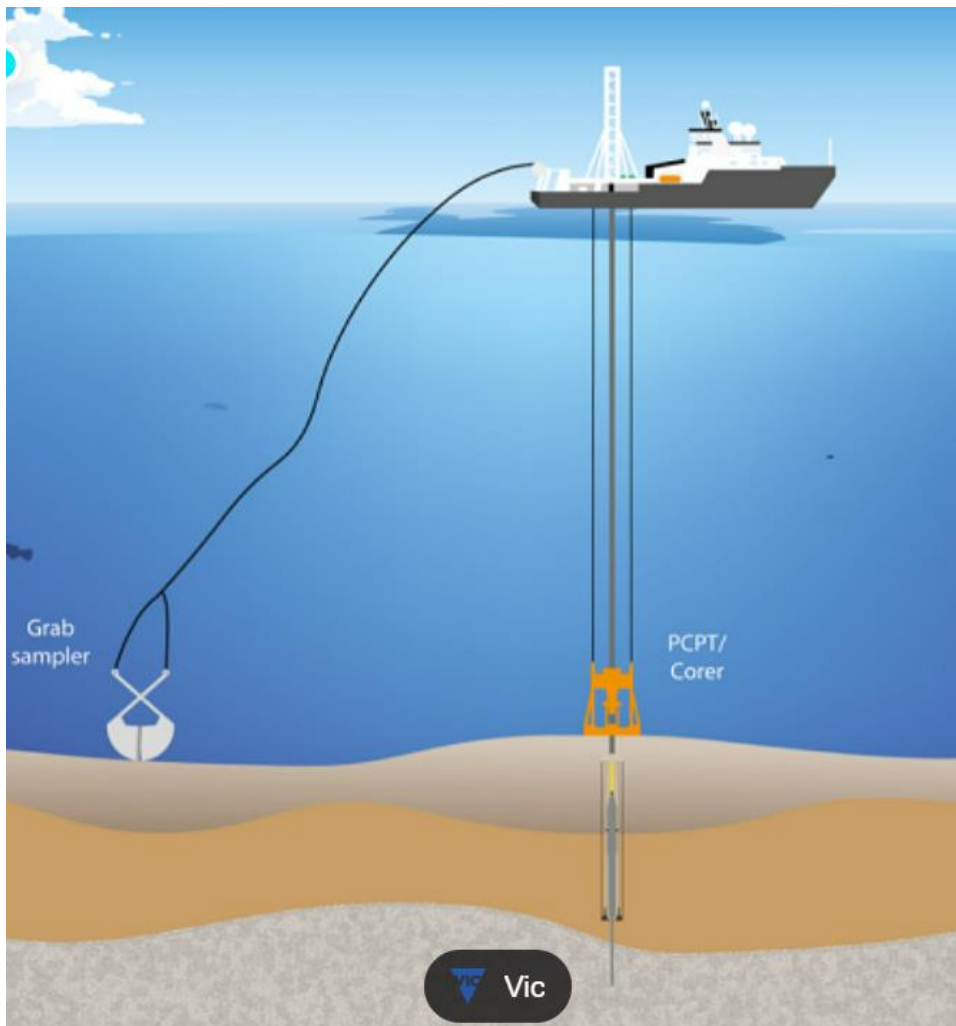
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The seafloor units typically use a smaller diameter pipe and do not always need the use of drilling mud.



Source: Victoria State Government, 2021

**Figure 3-6: Geotechnical drilling/testing from a vessel**

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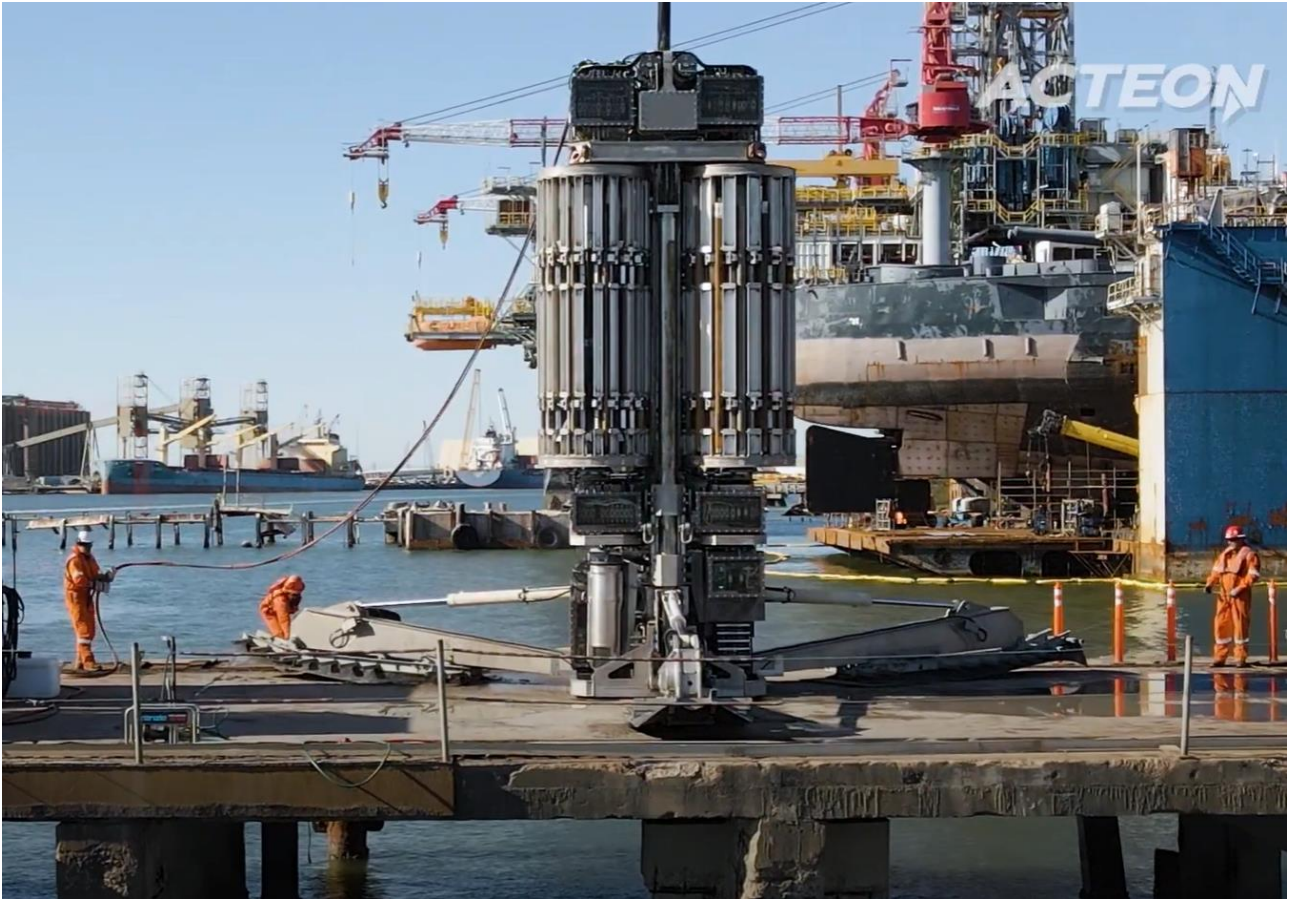


Figure 3-7: Typical remote subsea drilling rig

### 3.7.2.3 Piston Core Sampling

Piston coring is normally used on soft, unconsolidated sediments. A piston corer is lowered by wire rope to the seabed, at approximately 1m/s so the duration of lowering and recovery operation is short (minutes at each site). It has a trigger device that hits the seabed before the core barrel and releases the corer allowing it to freefall (**Figure 3-8**). As the barrel enters the sediment, a special internal piston creates a vacuum and helps to draw the core into the barrel. Core catchers prevent the sediment from coming out of the coring tube. The leading edge of the coring tube is tapered to minimise disturbing the sample and seabed. This suction reduces compaction of the sample in the inner sleeve. Sampling itself is of short duration, typically approximately 15 minutes at each location.

When the depth of sampler refusal is reached, all equipment is withdrawn from the seabed. A small hole will remain in the seabed, which if does not collapse immediately, will infill with time. Typically, the hole left in the seabed will be proportional to the geometry of the sample tube (i.e. typically 3 m depth by 105 mm diameter).

Piston core samples are typically 72–105 mm in diameter and 1 m–6 m in length (**Figure 3-9**).



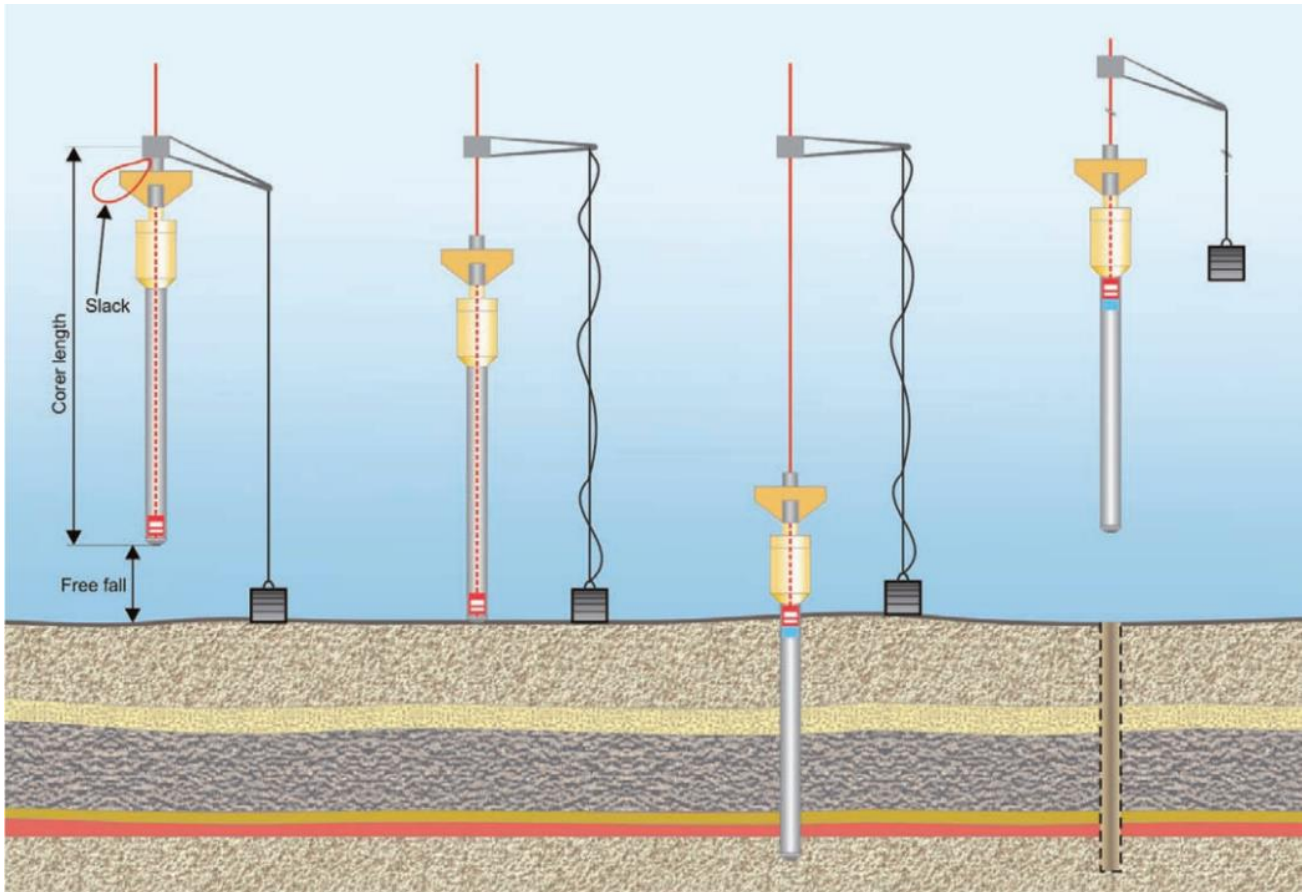


Figure 3-8: Example of a geotechnical piston corer

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Figure 3-9: Examples of a geotechnical piston core sample tubes

#### 3.7.2.4 Box Core Sampling

Box core samplers (Figure 3-10) are designed to recover bulk, undisturbed samples of soft surficial material. Box dimensions of 0.5 m by 0.5 m by 0.5 m are typically used for offshore geotechnical surveys. The box corer is mounted on a frame, which is lowered to the seabed. A self-releasing trigger mechanism, initiated once the frame reaches the seabed, allows the box corer to penetrate into the seabed. Penetration is limited by a stopper to 0.5 m depth.

The volume of sample recovery is typically approximately 0.125 m<sup>3</sup>.



**Figure 3-10: Examples of box core samplers**

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## 4. DESCRIPTION OF THE EXISTING ENVIRONMENT

### 4.1 Overview

In accordance with Regulations 21(2) and 21(3) of the Environment Regulations, this section describes the existing environment that may be affected (EMBA) by the activity (planned and unplanned, as described in Section 3), including details of the particular relevant values and sensitivities of the environment, which were used for the risk assessment. As per Section 2.4.2, references to the Master Existing Environment.

The EMBA is the largest spatial extent where unplanned events could have an environmental consequence on the surrounding environment. For this EP, the EMBA is the potential spatial extent of surface and in-water hydrocarbons at concentrations above ecological impact thresholds, in the event of the worst-case credible spill scenario (Section 6.6.1). The ecological impact thresholds used to delineate the EMBA are defined in Table 4-1. The worst-case credible spill scenario for this EP is accidental vessel collision resulting in breach of project vessel fuel tanks.

Woodside recognises that hydrocarbons may be visible beyond the EMBA at lower concentrations than the ecological impact thresholds defined in Table 4-1. These visible hydrocarbons are not expected to cause ecological impacts. In respect of this, an additional socio-cultural EMBA is defined, as the potential spatial extent within which social-cultural impacts may occur from changes to the visual amenity of the marine environment. Receptors relevant to the socio-cultural EMBA include Commonwealth and State marine protected areas (MPAs), areas of tourism and recreation, and commercial and traditional fisheries. For this EP, the socio-cultural EMBA for surface hydrocarbons encompasses an area wider than the boundaries of the EMBA for ecological impacts. The EMBA and socio-economic EMBA are shown in Figure 4-1 and described in Table 4-1.

The EMBA presented does not represent the predicted coverage of any one hydrocarbon spill or a depiction of a slick or plume at any particular point in time. Rather, the areas are a composite of a large number of theoretical paths, integrated over the full duration of the simulations under various metocean conditions.

**Table 4-1: Hydrocarbon spill thresholds used to define EMBA for surface and in-water hydrocarbons**

Hydrocarbon Type	EMBA1	Socio-cultural EMBA1	Planning Area for Scientific Monitoring
Surface	10 g/m <sup>2</sup> This represents the minimum oil thickness (0.01 mm) at which ecological impacts (e.g. to birds and marine mammals) are expected to occur.	1 g/m <sup>2</sup> This represents a wider area where a visible sheen may be present on the surface and, therefore, the concentration at which socio-cultural impacts to the visual amenity of the marine environment may occur. However, it is below concentrations at which ecological impacts are expected to occur.  This low exposure value also establishes the planning area for scientific monitoring (NOPSEMA guidance note: A652993, April 2019).	
Dissolved	50 ppb This represents potential toxic effects, particularly sublethal effects to highly sensitive species (NOPSEMA guidance note: A652993, April 2019). As dissolved hydrocarbons are within the water column and not visible, impacts to socio-cultural receptors are associated with ecological impacts. Therefore, dissolved hydrocarbons at this threshold also represent the level at which socio-cultural impacts may occur.		10 ppb This low exposure value establishes the planning area for scientific monitoring (based on potential for exceedance of water quality triggers) (NOPSEMA guidance note: A652993, April 2019). This area is described further in appendix H:  In the event of a spill, DNP will be notified of AMPs which may be contacted by hydrocarbons at this threshold (Table 7-2).
Entrained	100 ppb		

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Hydrocarbon Type	EMBA1	Socio-cultural EMBA1	Planning Area for Scientific Monitoring
	This represents potential toxic effects, particularly sublethal effects to highly sensitive species (NOPSEMA guidance note: A652993, April 2019). As entrained hydrocarbons are within the water column and not visible, impacts to socio-cultural receptors are associated with ecological impacts. Therefore, entrained hydrocarbons at this threshold also represent the level at which socio-cultural impacts may occur.		
Shoreline	100 g/m2 This represents the threshold that could impact the survival and reproductive capacity of benthic epifaunal invertebrates living in intertidal habitat.	10 g/m2 This represents the volume where hydrocarbons may be visible on the shoreline but is below concentrations at which ecological impacts are expected to occur.	N/A

1 Further details including the source of the thresholds used to define the EMBA in this table are provided in Section 6.6.1

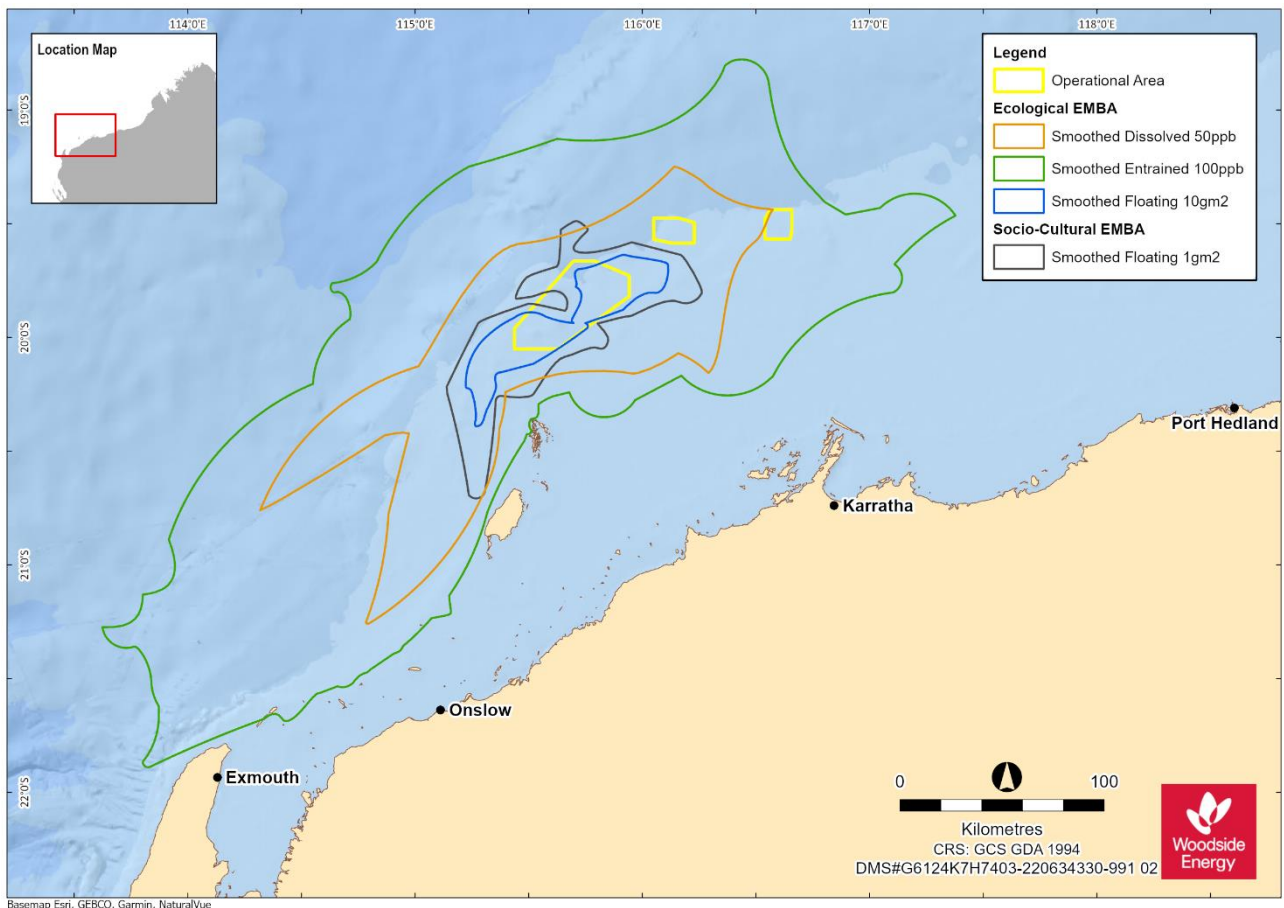


Figure 4-1: Environment that may be affected by the PGGAP

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## 4.2 Regional Context

The Operational Areas are located in Commonwealth waters within the North-west Marine Region (NWMR), as defined under the Integrated Marine and Coastal Regionalisation of Australia (IMCRA v4.0) (Commonwealth of Australia, 2006), in water depths of about 20-190 m with some shallow shoals (Rankin Bank and Wilcox Shoal) at a minimum 20 m water depth. Within the NWMR, the operational areas lie within the NWS Province (Figure 4-2). The EMBA overlaps the Northwest Province and Northwest Transition. Woodside's Description of Existing Environment summarises the characteristics for the relevant marine bio-regions.

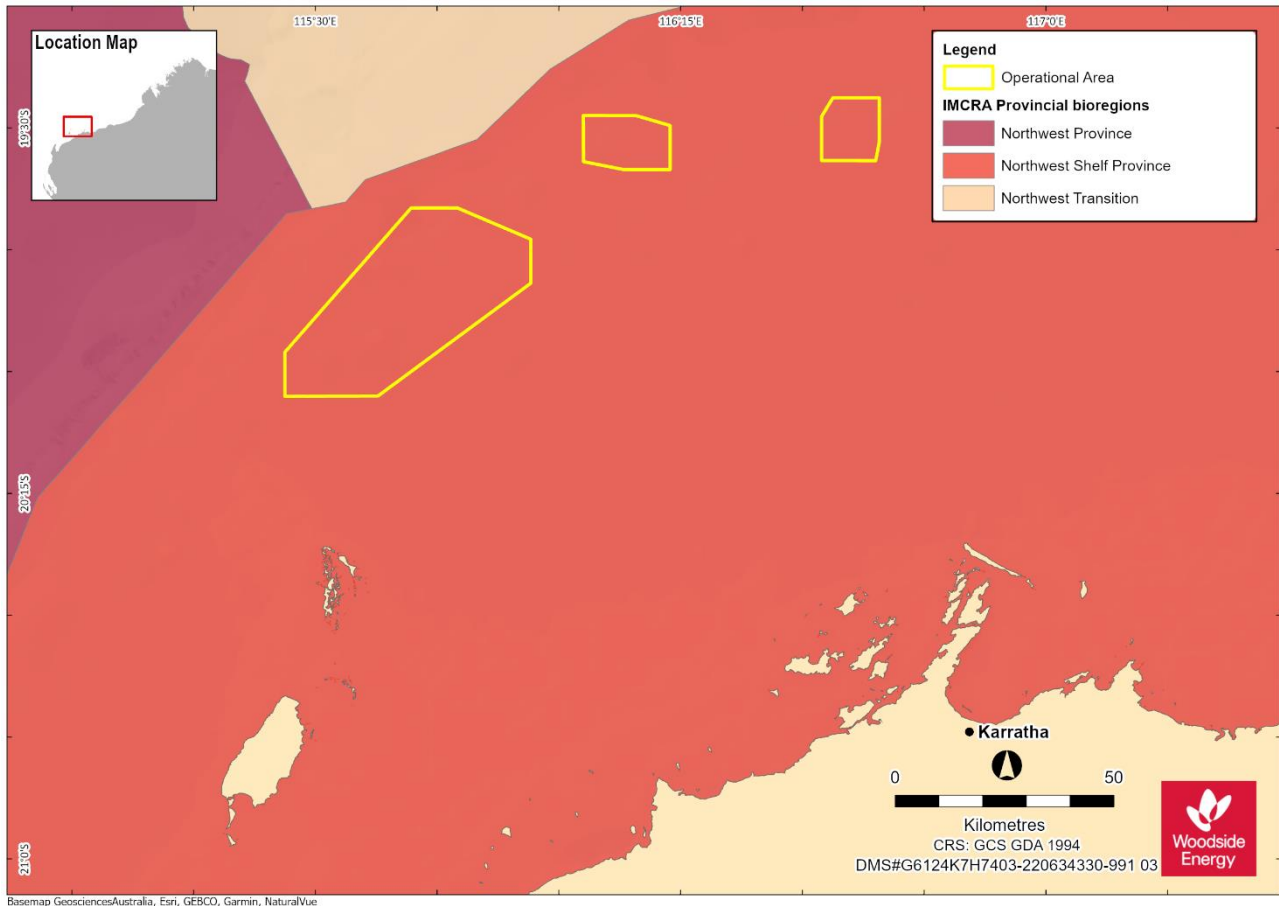


Figure 4-2: Location of the Operational Areas and relevant marine bioregions

## 4.3 Matters of National Environmental Significance

Table 4-2 and Table 4-3 summarise the matters of national environmental significance (MNES) under the EPBC Act that overlap the Operational Areas and EMBA, according to EPBC Act Protected Matters Search Tool (PMST) results (Appendix C). The PMST is a general database that conservatively identifies areas in which protected species have the potential to occur.

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**Table 4-2: Summary of MNES identified by the EPBC Act PMST as potentially occurring within the Operational Areas**

MNES	Number Overlapping the Operational Areas			Relevant Section of the EP and Master Existing Environment
	Area A	Area B	Area C	
World Heritage Properties	0	0	0	Section 4.9 Section 11.2 of the Master Existing Environment
National Heritage Places	0	0	0	
Wetlands of International Importance (Ramsar)	0	0	0	Section 4.9 Section 4 and 5 of the Master Existing Environment
Commonwealth Marine Area	1	1	1	
Listed Threatened Ecological Communities	0	0	0	
Listed Threatened Species	22	17	18	Section 4.6 Sections 3 to 8 of the Master Existing Environment.
Listed Migratory Species	39	35	35	

**Table 4-3: Summary of MNES identified by the EPBC Act PMST as potentially occurring within the EMBA**

MNES	Number Overlapping the EMBA	Relevant Section of the EP and Master Existing Environment
World Heritage Properties	1	Section 4.9 and Section 11.2 of the Master Existing Environment
National Heritage Places	1	
Wetlands of International Importance (Ramsar)	0	Section 4.9
Commonwealth Marine Area	1	
Listed Threatened Ecological Communities	0	
Listed Threatened Species	27	Section 4.6
Listed Migratory Species	52	Section 4.6

#### 4.4 Physical Environment

The Operational Areas lie on the outer continental shelf in waters approximately 20 to 190 m deep (Figure 4-3). The bathymetry within the Operational Areas is generally flat, which is consistent with the broader NWS Province shelf region (Baker et al. 2008). Operational Area A displays a significant increase in depth at the north-west end of the area. The seabed has a gentle (0.05°) seaward gradient extending to a steep distal slope occurring between 200 to 300 km offshore in water depths of around 200 m (Dix et al. 2005). The continental slope then descends more rapidly from the shelf edge to depths greater than 1,000 m to the north-west (James et al. 2004). Operational Area A also includes Rankin Bank and Wilcox Shoal.

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A summary of the physical characteristics of the environment within the Operational Areas and EMBA is provided in Section 2.4 of the Master Existing Environment.

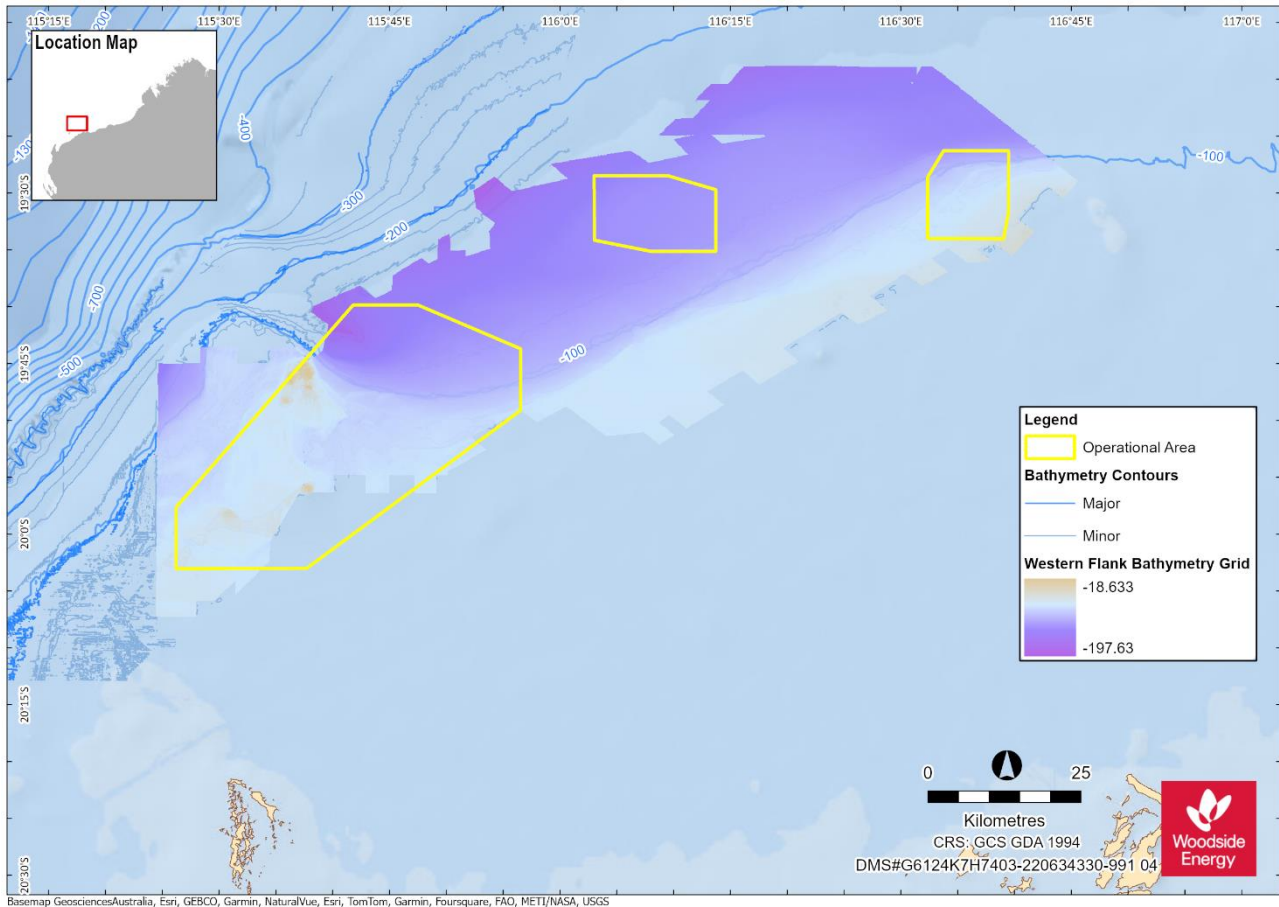


Figure 4-3: Bathymetry of the Operational Areas

#### 4.5 Habitats and Biological Communities

Sediments in the Operational Areas are broadly consistent with those in the NWS Province, with typically low levels of potential contaminants of geogenic origin (often below laboratory limits of detection), with the exception of localised areas of elevated barium (AIMS 2014b, RPS 2012a). Elevated barium has been attributed to contamination from historical drilling activities (AIMS 2014b), as barite (barium sulphate) is commonly used in drilling fluids. Sediments in the outer NWS Province are relatively homogenous and are typically dominated by sands and a small portion of gravel (Baker et al. 2008). Fine sediment size classes (e.g. muds) increase with proximity to the shoreline and the shelf break, but are less prominent in the intervening continental shelf (Baker et al. 2008). Carbonate sediments typically account for the bulk of sediment composition, with both biogenic and precipitated sediments present on the outer shelf (Dix et al. 2005). Beyond the shelf break, the proportion of fine sediments increases along the continental slope towards the Exmouth Plateau and the abyssal plain (Baker et al. 2008).

Historical discharge of drill cuttings around wells and the GWA platform has resulted in potential contamination of sediments with drilling fluids (primarily barium, introduced through the historical use of barite in drilling muds). This contamination is typically localised within 200-400 m of the GWA platform, with other potential contaminants such as heavy metals present in low concentrations (BMT Oceanica 2015). Sediments in the operational areas are expected to be comprised primarily of fine

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sands, very fine sands and silt, with monitoring near the GWA platform indicating these size fractions constitute the majority of sediments (BMT Oceanica 2015).

Hard substrate occurs within the Operational Areas at a number of shoals and banks, such as Rankin Bank, Wilcox Shoal and Glomar Shoal, it may also occur within the ancient coastline at 125 m depth contour key ecological feature (KEF) (Section 4.7), which overlaps Operational Area A, B and C.

Rankin Bank is on the continental shelf, and overlaps Operational Area A. While not a KEF, Rankin Bank, along with Glomar Shoal, is the only large, complex bathymetrical feature on the outer western shelf of the West Pilbara and represents habitats that are likely to play an important role in the productivity of the Pilbara region (AIMS 2014a). Rankin Bank consists of three submerged shoals delineated by the 50 m depth contour with water depths of approximately 18–30.5 m (AIMS 2014a).

Rankin Bank represents a diverse marine environment, predominantly composed of consolidated reef and algae habitat (~55% cover), followed by hard corals (~25% cover), unconsolidated sand/silt habitat (~16% cover), and benthic communities composed of macroalgae, soft corals, sponges and other invertebrates (~3% cover) (AIMS 2014a). Hard corals are a significant component of the benthic community of some parts of the bank, with abundance in the upper end of the range observed elsewhere on the submerged shoals and banks of NW Australia (Heyward et al. 2012).

Rankin Bank has been shown to support a diverse fish assemblage (AIMS 2014a). This is consistent with studies showing a strong correlation between habitat diversity and fish assemblage species richness (Gratwicke and Speight 2005, Last et al. 2005). The habitat surrounding Rankin Bank (<50 m) was mapped by AIMS on behalf of Woodside (2014b) and hosts filter feeding communities in areas of consolidated substrate interspersed by sand.

Operational Area A overlaps Wilcox Shoal. Based on the bathymetry of the Wilcox Shoal (ranging from ~30 m below surface waters to ~80 m at seabed) it is highly likely the upper reaches of the shoal support a high cover of benthic organisms comprising mixed hard and soft corals (30–40 m depth range), transitioning to a deeper water benthic community comprising soft corals and mixed biota (sponges, other sessile invertebrate biota). The biodiversity value of the coral-dominated mesophotic coral ecosystems and associated abundance and diversity of the fish communities have been documented for Rankin Bank and Glomar Shoal (Abdul Wahab et al. 2018) and, given its proximity to Rankin Bank, it is highly likely that Wilcox Shoal has similar biodiversity values.

Glomar Shoal is a shallow sedimentary bank comprised of coarser biogenic material than the surrounding seabed. The shoals consist of a high percentage of marine-derived sediments with high carbonate content and gravels of weathered coralline algae and shells (McLoughlin & Young 1985). The shoals are 26 to 70 m below the sea surface and have also been identified as a KEF (Falkner et al. 2009). Glomar Shoals overlaps the south-eastern corner of Operational Area C.

Key habitats and ecological communities within the EMBA are identified in Table 4-4 and described in Sections 4 and 5 of the Master Existing Environment.

**Table 4-4: Habitats and Communities within the EMBA**

Habitat/Community	Key locations within the EMBA
<b>Seabed Characteristics</b>	
Glomar Shoal	Glomar Shoal is a shallow sedimentary bank comprised of coarser biogenic material than the surrounding seabed. The shoal is 26 to 70 m below the sea surface (Falkner et al. 2009) and overlaps Operational Area C. Glomar Shoals has also been identified as a KEF (Falkner et al. 2009). This KEF encompasses a wider area than the shoal feature itself.
Wilcox Shoal	Wilcox Shoal overlaps part of Operational Area A. Based on the bathymetry of the Wilcox Shoal (ranging from ~30 m below surface waters to ~80 m at

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Habitat/Community	Key locations within the EMBA
	seabed) it is highly likely the upper reaches of the shoal support a high cover of benthic organisms comprising mixed hard and soft corals (30–40 m depth range), transitioning to a deeper water benthic community comprising soft corals and mixed biota (sponges, other sessile invertebrate biota). The biodiversity value of the coral-dominated mesophotic coral ecosystems and associated abundance and diversity of the fish communities have been documented for Rankin Bank and Glomar Shoal (Abdul Wahab et al. 2018) and, given its proximity to Rankin Bank, it is highly likely that Wilcox Shoal has similar biodiversity values.
Ancient Coastline at 125 m Depth Contour	The Ancient Coastline at 125 m Depth Contour KEF, overlaps parts of three operational areas (DAWE 2019a); Section 4.7). Areas of this KEF comprise hard substrate and may occur within the operational areas. Hard substrate seabed habitats present within the operational areas are likely to support filter feeding biota such as sponges and gorgonians (sea whip and fans), as reported for hard substrate seabed habitat in similar water depths along this outer shelf area of the NWS.
<b>Marine primary producers</b>	
Coral	Rankin Bank and Wilcox Shoal – Overlaps Operational Area A Glomar Shoal – overlaps Operational Area C Montebello Islands - ~34 km south of Operational Area A Lowendal Islands – ~65 km south of Operational Area A Barrow Island - ~68km south south-west of Operational Area A Muiron Islands- ~207 km south-west of Operational Area A
Seagrass beds and macroalgae	Montebello Islands - ~34 km south of Operational Area A Barrow Island - ~68km south south-west of Operational Area A Muiron Islands- ~207 km south-west of Operational Area A
Mangroves	Montebello Islands - ~34 km south of Operational Area A Lowendal Islands – ~65 km south of Operational Area A Barrow Island - ~68km south south-west of Operational Area A
<b>Other communities and habitats</b>	
Plankton	Plankton within the Operational Areas and EMBA are expected to be representative of the wider NWMR as detailed in Section 4.3 of the Master Existing Environment.  Primary productivity of the NWS is largely driven by offshore influences (as reported by Brewer et al., 2007, with periodic upwelling events and cyclonic influences driving coastal productivity, and with nutrient recycling and advection. Cyanobacteria and diatoms are the predominant phytoplankton contributors. It is expected that the dominant primary consumers are copepods, with a wide range of secondary consumers comprising larger planktonic taxa (including larval fish and invertebrates) (Brewer et al., 2007).  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). Further detail regarding productivity at other notable locations within the EMBA (e.g. North-west Cape) is provided in the Master Existing Environment, Section 4.3.3.
Pelagic and demersal fish populations	Pelagic and demersal fish populations within the three operational areas and EMBA are expected to be representative of the NWMR (described in the Master Existing Environment, Section 5.3).  Particular features within the EMBA that are known to support pelagic and demersal fish populations include the Ancient Coastline at 125 m Depth

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Habitat/Community	Key locations within the EMBA
	<p>Contour KEF (which is mapped as overlapping all operational areas), the Continental Slope Demersal Fish Communities KEF, the Western demersal slope and associated fish communities of the Central Western Province KEF, Rankin Bank, Wilcox Shoal and Glomar Shoal (including the Glomar Shoal KEF). Detail regarding these features is provided in the Master Existing Environment, Section 9.</p> <p>Notably, the presence of subsea infrastructure associated with the GWA, Pluto and Angel facilities has resulted in the development of demersal fish communities that would otherwise not occur in the operational areas due to the generally featureless, soft substrate that is present (McLean et al. 2017).</p>
Epifauna and infauna	<p>Filter feeders 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 within the EMBA are expected to be representative of the NWMR, with notable areas of high sponge diversity occurring at Glomar Shoal, overlapping Operational Area C, within the EMBA (see Master Existing Environment, Section 5.4).</p> <p>Discrete areas of hard substrate hosting sessile filter feeding communities may also be associated within the Ancient Coastline at 125 m Depth Contour KEF, which overlaps the operational areas. Filter feeder communities within the operational areas are present on the subsea infrastructure and facilities, which provides hard substrate for attachment in an otherwise generally featureless, soft and sandy substrate.</p>

#### 4.6 Protected Species

A total of 60 EPBC Act listed species considered to be MNES were identified as potentially occurring within the EMBA, of which a subset of 43 species were identified as potentially occurring within Operational Area A. 36 EPBC Act listed species considered to be MNES were identified as potentially occurring within Operational Area B. 38 EPBC Act listed species considered to be MNES were identified as potentially occurring within Operational Area C. The full list of marine species identified from the PMST reports is provided in Appendix C, including several MNES that are not considered to be credibly impacted (e.g. terrestrial species within the EMBA). Criteria for determining species to be considered for impact assessment is outlined in Section 3.2 of the Master Existing Environment. Two conservation dependent species have also been identified with a potential to occur within all Operational Areas and EMBA. These species, the Bluefin Tuna and Scalloped Hammerhead, are listed on the Species Profile and Threats Database (DAWE, 2021).

Table 4-5 to Table 4-14 list the species identified by the PMST that have a potential to be impacted by the PGGAP, as well as overlapping Biologically Important Areas (BIAs) or Habitat Critical to Survival (Habitat Critical) for these species. A description of each species is included in Section 5 to Section 8 of the Master Existing Environment. Figure 4-4 to Figure 4-10 show the spatial overlap with relevant BIAs and Habitat Critical areas and the Operational Areas and EMBA.

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### 4.6.1 Fish, Sharks and Rays

**Table 4-5: Threatened and Migratory Fish, Shark and Ray Species predicted to occur within Operational Areas and the EMBA**

Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Cacharias taurus</i>	Grey Nurse Shark (west coast population)	Vulnerable	N/A	Species or species habitat likely to occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Carcharodon carcharias</i>	White Shark, Great White Shark	Vulnerable	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Pristis clavata</i>	Dwarf Sawfish, Queensland Sawfish	Vulnerable	Migratory	Species or species habitat known to occur within area	N/A	N/A	Species or species habitat known to occur within area
<i>Pristis pristis</i>	Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish	Vulnerable	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat likely to occur within area
<i>Pristis zijsron</i>	Green Sawfish, Dindagubba, Narrowsnout Sawfish	Vulnerable	Migratory	Species or species habitat known to occur within area	Species or species habitat known to occur within area	Species or species habitat known to occur within area	Species or species habitat known to occur within area
<i>Rhincodon typus</i>	Whale Shark	Vulnerable	Migratory	Foraging, feeding or related behaviour known to occur within area	Foraging, feeding or related behaviour known to occur within area	Foraging, feeding or related behaviour known to occur within area	Foraging, feeding or related behaviour known to occur within area

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Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Anoxypristis cuspidata</i>	Narrow Sawfish, Knifetooth Sawfish	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area	Species or species habitat known to occur within area
<i>Mobula alfredi</i>	Reef Manta Ray	N/A	Migratory	Species or species habitat known to occur with area	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
<i>Mobula birostris</i>	Giant Manta Ray	N/A	Migratory	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	Species or species habitat known to occur within area
<i>Isurus paucus</i>	Longfin Mako	N/A	Migratory	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	Species or species habitat likely to occur within area
<i>Carcharhinus longimanus</i>	Ocean Whitetip Shark	N/A	Migratory	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	Species or species habitat likely to occur within area
<i>Isurus oxyrinchus</i>	Shortfin Mako, Mako Shark	N/A	Migratory	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	Species or species habitat likely to occur within area

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**Table 4-6: Fish, Shark and Ray BIAs within the Operational Areas and EMBA**

Species	BIA type	Approximate distance and direction of BIA from Operational Areas (km)			
		Area A	Area B	Area C	EMBA
Whale Shark	Foraging	Overlaps	Overlaps	Overlaps	Overlaps
	Foraging (high density prey)	244 km south-west	326 km south-west	361 km south-west	Overlaps

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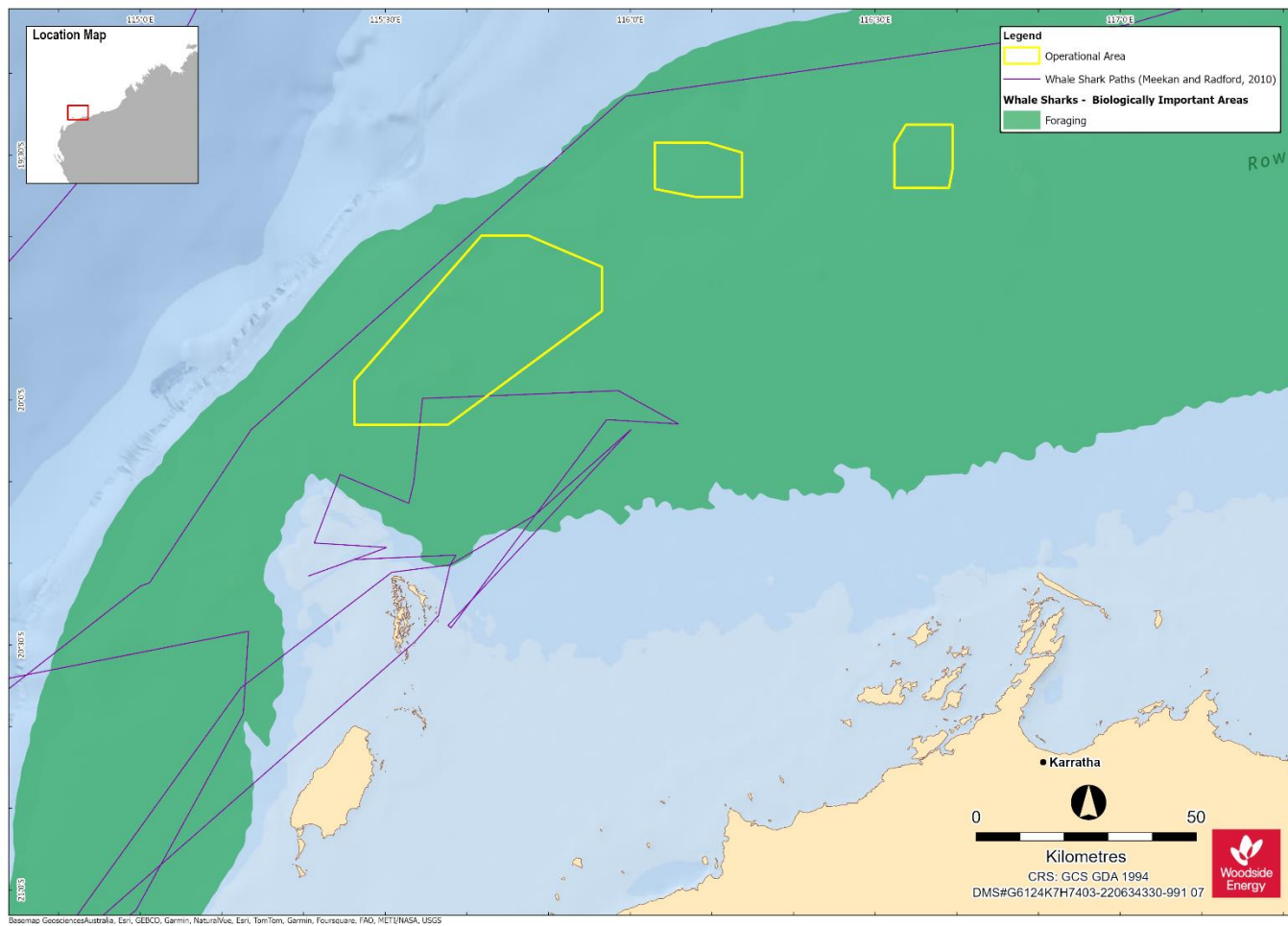


Figure 4-4: Whale Shark BIAs and satellite tracks of whale sharks tagged between 2005 and 2008 (Double et al. 2012, 2014)

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### 4.6.2 Marine Reptiles

**Table 4-7: Threatened and Migratory Marine Reptile Species predicted to occur within Operational Areas and the EMBA**

Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Aipysurus apraefrontalis</i>	Short-nosed Seasnake	Critically endangered	N/A	Species or species habitat likely to occur within area	N/A	Species or species habitat known to occur within area	Species or species habitat known to occur within area
<i>Aipysurus foliosquama</i>	Leaf-scaled Seasnake	Critically endangered	N/A	Species or species habitat likely to occur within area	N/A	Species or species habitat likely to occur within area	Species or species habitat known to occur within area
<i>Caretta caretta</i>	Loggerhead Turtle	Endangered	Migratory	Species or species habitat known 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
<i>Chelonia mydas</i>	Green Turtle	Vulnerable	Migratory	Species or species habitat known 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
<i>Dermochelys coriacea</i>	Leatherback Turtle, Leathery Turtle, Luth	Endangered	Migratory	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	Species or species habitat known to occur within area
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Vulnerable	Migratory	Species or species habitat known 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 name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Natator depressus</i>	Flatback Turtle	Vulnerable	Migratory	Congregation or aggregation known to occur within area	Congregation or aggregation known to occur within area	Congregation or aggregation known to occur within area	Breeding known to occur within area

**Table 4-8: Marine Turtle BIAs within or adjacent to Operational Areas**

Species	BIA type	Approximate Distance and Direction of BIA from Operational Areas (km)		
		Area A	Area B	Area C
Hawksbill Turtle	Internesting Buffer	11 km south	80 km southwest 83 km south-southeast	69.5 km south
Loggerhead Turtle	Internesting Buffer	20.5 km south	84 km south-southeast	70.5 km south
Green Turtle	Internesting Buffer	8.5 km south	75.5 km southwest	73 km south
Flatback Turtle	Internesting Buffer	Overlaps	21 km southwest 30 km southeast	12.5 km south

**Table 4-9: Marine Turtle BIAs within the EMBA**

Species	BIA type (closest location)
Hawksbill turtle	Internesting Buffer (Barrow Island; Montebello Islands)
	Nesting (Barrow Island; Montebello Islands)
	Mating (Barrow Island; Montebello Islands)

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Species	BIA type (closest location)
	Foraging (Barrow Island; Montebello Islands)
Loggerhead turtle	Internesting Buffer (Muiron Islands; North West Cape; Montebello Islands)
	Nesting (Muiron Islands; North West Cape)
Green turtle	Internesting Buffer (Barrow Island; Montebello Islands; Muiron Islands; North West Cape)
	Internesting (Barrow Island; Montebello Islands)
	Nesting (Barrow Island; Montebello Islands; Muiron Islands)
	Foraging (Barrow Island; Montebello Islands)
	Basking (Barrow Island)
	Mating (Barrow Island; Montebello Islands)
	Aggregation (Montebello Islands)
Flatback turtle	Internesting Buffer (Barrow Island; Montebello Islands)
	Internesting (Montebello Islands)
	Nesting (Barrow Island; Montebello Islands)
	Foraging (Barrow Island; Montebello Islands)
	Mating (Barrow Island; Montebello Islands)
	Aggregation (Montebello Islands)
Leatherback turtle	No BIAs within the EMBA or Operational Areas

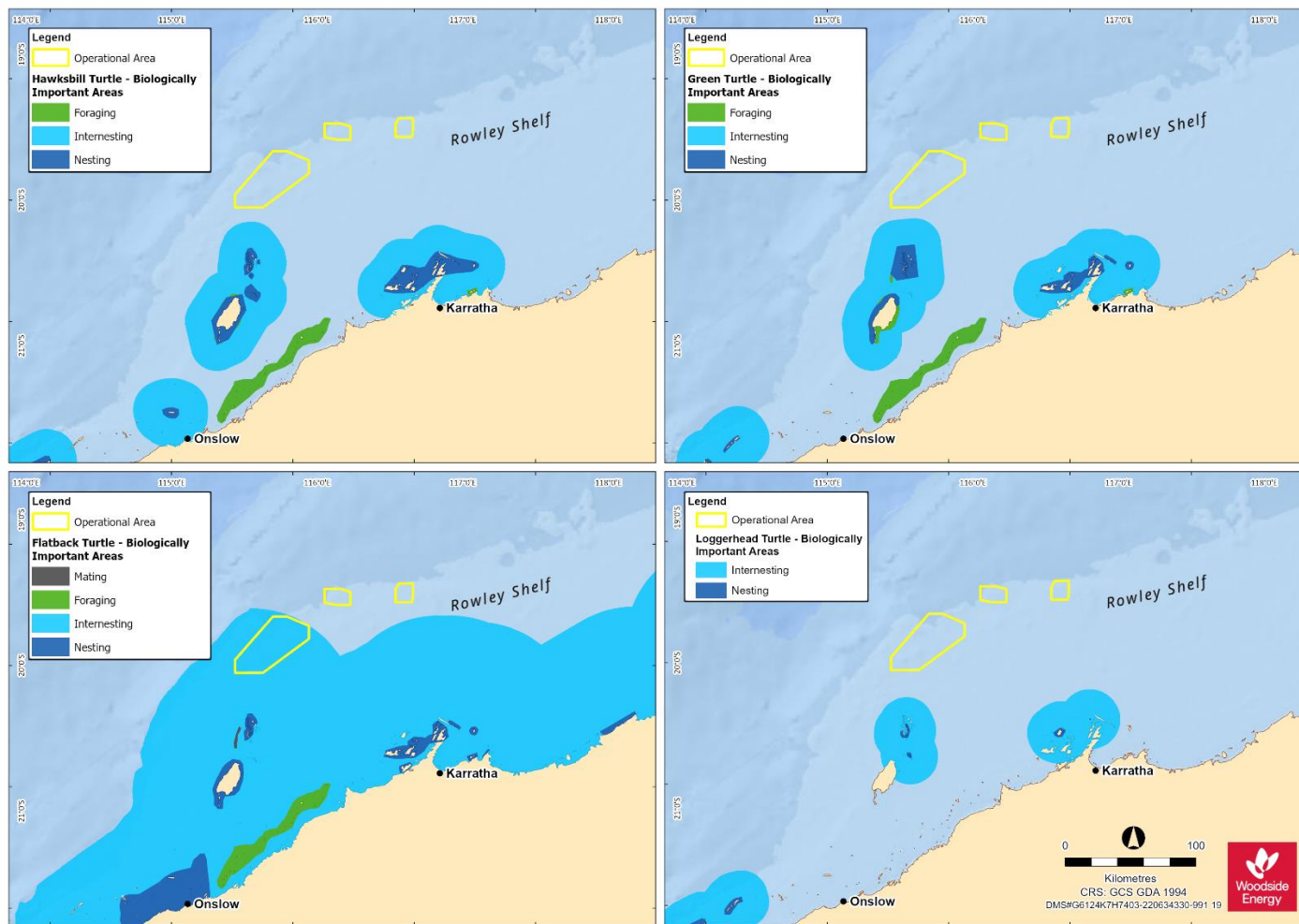
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**Table 4-10: Interesting Habitat Critical to the Survival of Marine Turtle Species predicted to occur within or adjacent to the Operational Areas and EMBA**

Species	Genetic Stock	Nesting Locations	Approximate Distance and Direction from Operational Areas (km)			Inter-nesting buffer	Nesting period	Hatching period
			Area A	Area B	Area C			
Hawksbill turtle	Western Australia	Montebello Islands (including Ah Chong Island, South East Island and Trimouille Island), Lowendal Islands (including Varanus Island, Beacon Island and Bridled Island), Dampier Archipelago (including Rosemary Island and Delambre Island)	14 km south	83 km south-west	69.5 km south	20 km	All year (peak: Oct–Jan)	All year (peak: Dec–Feb)
Loggerhead turtle	WA	Northwest Cape, Muiron Islands, Ningaloo Coast, Exmouth Gulf	214 km south-west	295 km south-west	329 km south-west	20 km	Nov–Mar (peak: Jan)	Jan–May
Green turtle	NWS	Barrow Island, Montebello Islands (all with sandy beaches), Serrurier Island, Dampier Archipelago, Thevenard Island, Northwest Cape	14 km south	83 km south-west	69.5 south	20 km	Nov–Mar (peak: Dec–Feb)	Jan–May (peak: Feb–Mar)
Flatback turtle	Pilbara	Montebello Islands, Mundabullangana Beach, Barrow Island, Cemetery Beach, Dampier Archipelago (including Delambre Island and Huay Island), Mackerel Islands, Passage Islands	Overlaps	43 km south-west 43.5 km south-east	29 km south	60 km	Oct–Mar (peak: Nov–Jan)	Feb–Mar
Leatherback turtle		No overlap - nesting located in Northern Territory and North Queensland						

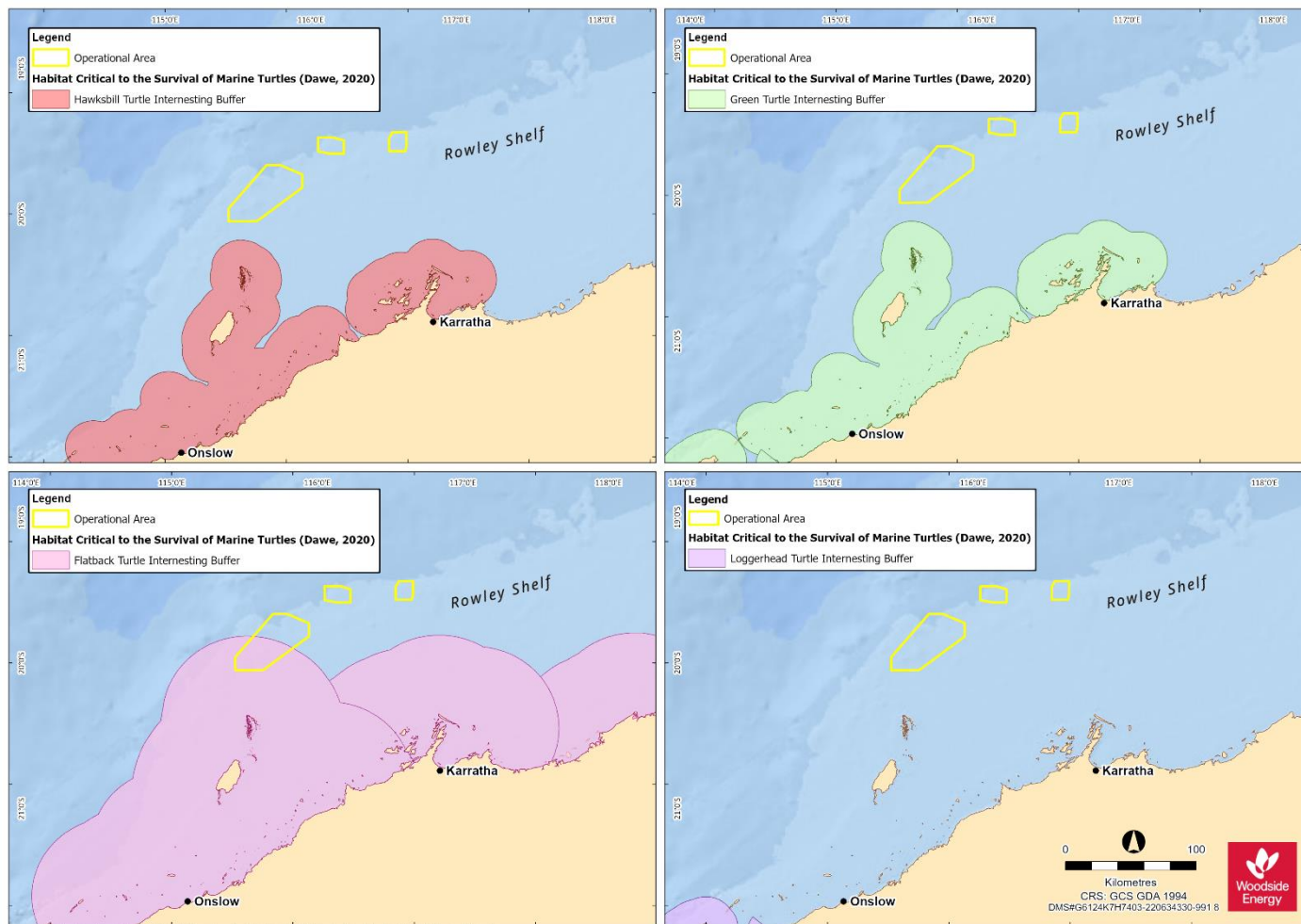
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**Figure 4-5: Marine Reptile BIAs overlapping and adjacent to the Operational Areas**

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**Figure 4-6: Habitat Critical to the Survival of Marine Turtles overlapping and adjacent to the Operational Areas**

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### 4.6.3 Marine Mammals

**Table 4-11: Threatened and Migratory Marine Mammal Species predicted to occur within the Operational Areas and EMBA**

Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Balaenoptera borealis</i>	Sei Whale	Vulnerable	Migratory	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	Foraging, feeding or related behaviour likely to occur within area
<i>Balaenoptera musculus</i>	Blue Whale	Endangered	Migratory	Migration route known to occur within area	Migration route known to occur within area	Species or species habitat likely to occur within area	Migration route known to occur within area
<i>Balaenoptera physalus</i>	Fin Whale	Vulnerable	Migratory	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	Foraging, feeding or related behaviour likely to occur within area
<i>Eubalaena australis</i>	Southern Right Whale	Endangered	Migratory	N/A	N/A	N/A	Species or species habitat likely to occur within area
<i>Megaptera novaeangliae</i>	Humpback Whale	N/A	Migratory	Breeding known to occur within area	Breeding known to occur within area	Breeding known to occur within area	Breeding known to occur within area
<i>Orcaella heinsohni</i>	Australian Snubfin Dolphin	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Physeter macrocephalus</i>	Sperm Whale	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area

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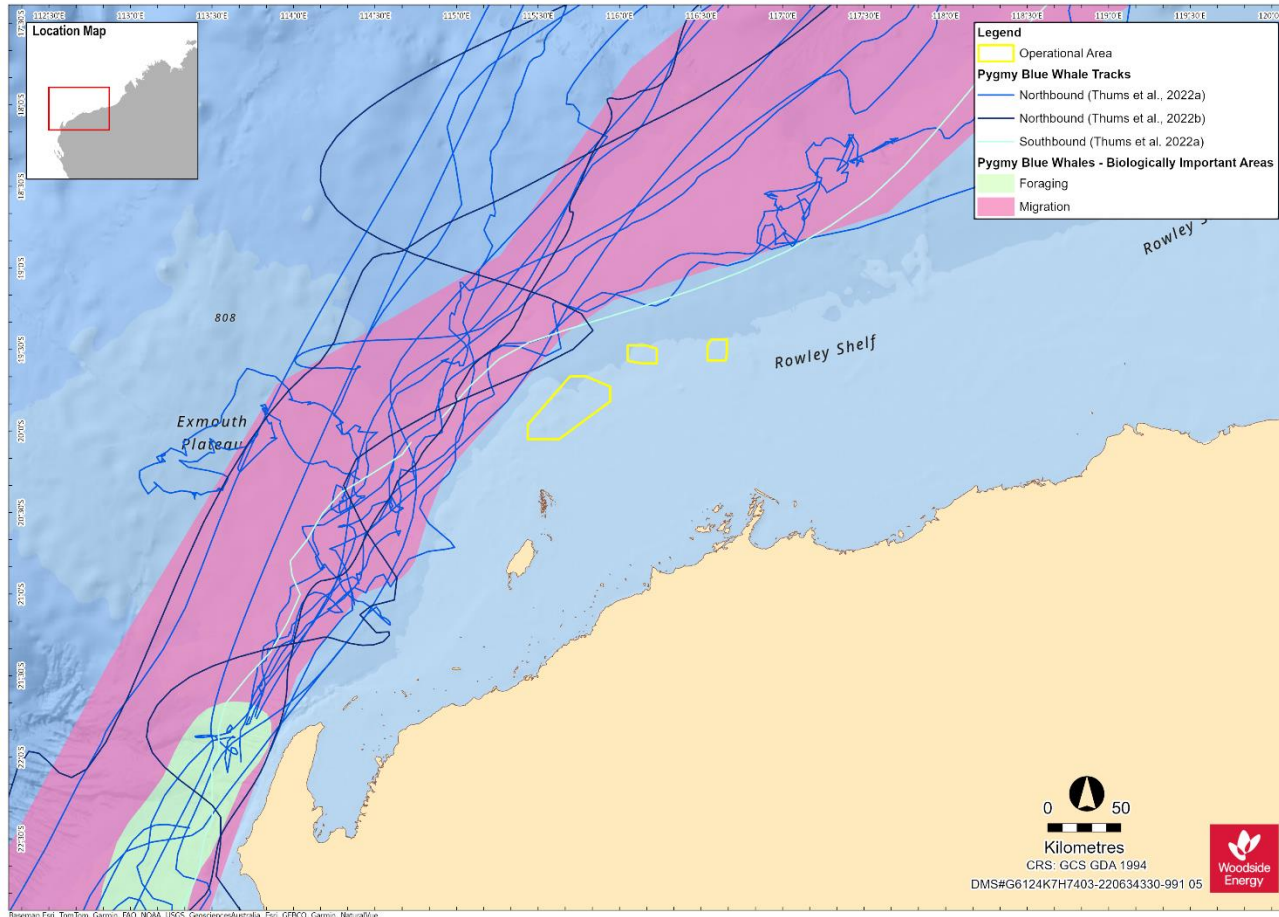
Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Tursiops aduncus</i>	Spotted Bottlenose Dolphin (Arafura/Timor Sea populations)	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Sousa sahalensis</i>	Australian Humpback Dolphin	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Orcinus orca</i>	Killer Whale, Orca	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Balaenoptera edeni</i>	Bryde's Whale	N/A	Migratory	Species or species habitat likely to occur within area	Species or species habitat likely to occur within area	Species or species habitat likely occur within area	Species or species habitat likely to occur within area
<i>Dugong dugon</i>	Dugong	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area
<i>Balaenoptera bonaerensis</i>	Antarctic Minke Whale, Dark-shoulder Minke Whale	N/A	Migratory	N/A	N/A	N/A	Species or species habitat likely to occur within area

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**Table 4-12: Marine Mammal BIAs within the EMBA**

Species	BIA type	Approximate Distance and Direction from Operational Areas (km)		
		Area A	Area B	Area C
Pygmy Blue Whale	Migration (Augusta to Derby)	20 km northwest	30 km northwest	47 km northwest
	Foraging (Ningaloo)	251 km southwest	333 km southwest	370 km southwest
Humpback Whale	Migration (north and south)	5 km south-southeast	38 km south	31 km south
Dugong	Breeding/Calving/Nursing (Exmouth Gulf)	210 km southwest	286 km southwest	315 km southwest
	Foraging (Exmouth Gulf)	210 km southwest	286 km southwest	315 km southwest

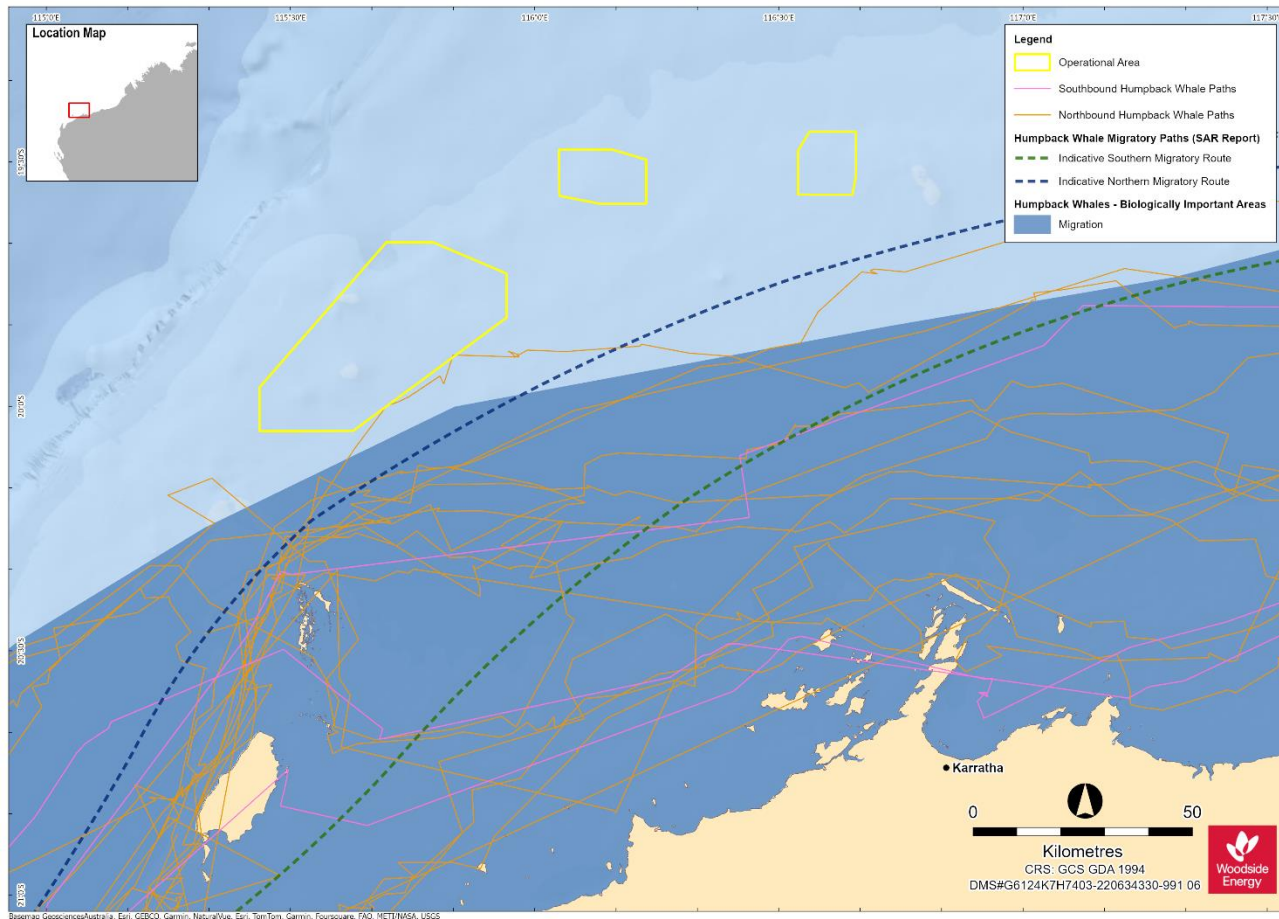
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**Figure 4-7: Pygmy blue whale BIAs in relation to the Operational Areas and satellite tracks of whales tagged between 2014 and 2022 (Double et al., 2014; Möller et al., 2020; Thums et al., 2022a; Thums et al 2022b)**

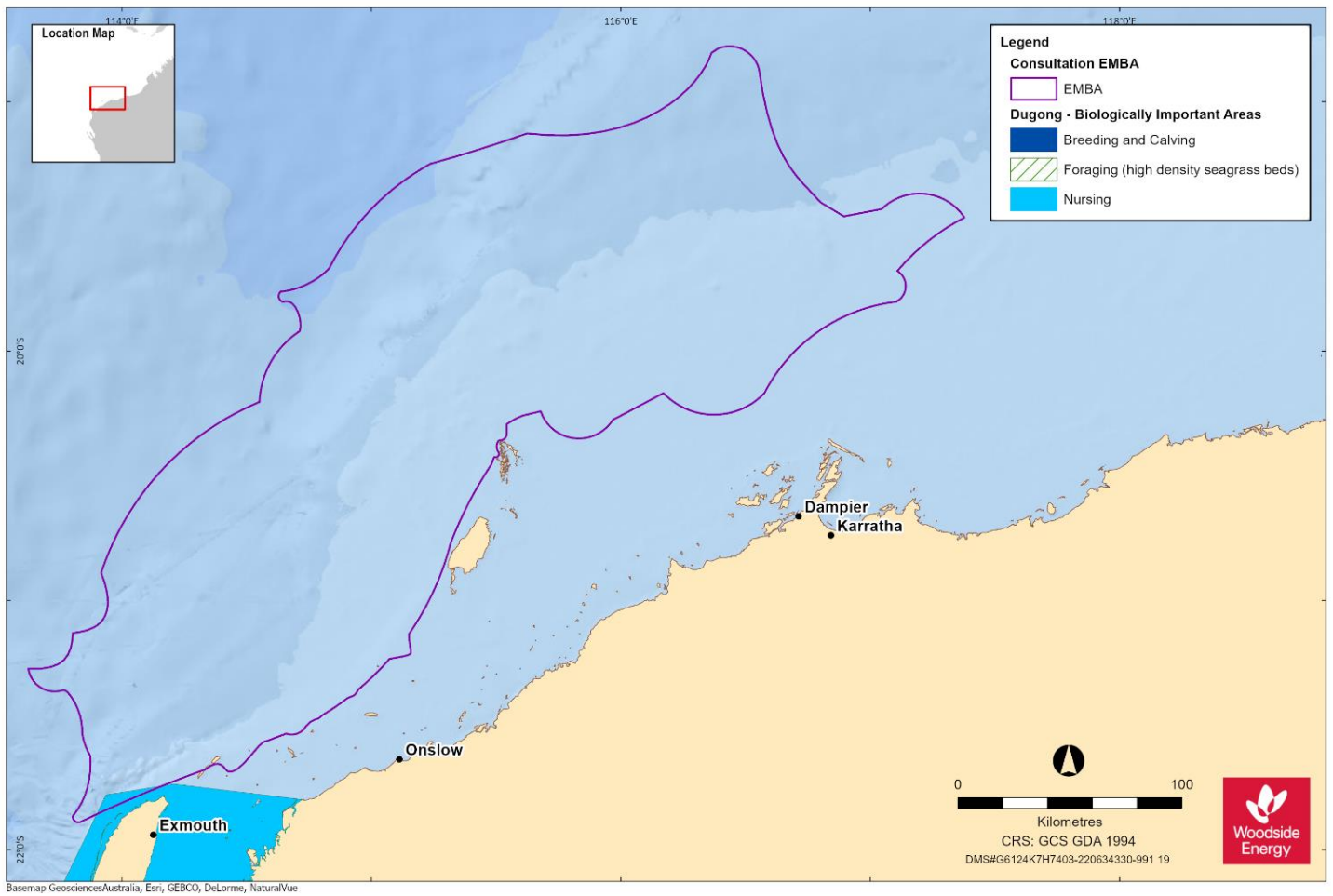
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**Figure 4-8 Humpback whale BIAs in relation to the Operational Areas and satellite tracks of whales tagged between 2010 and 2012 (Double et al., 2012, 2010)**

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**Figure 4-9 Dugong BIA's in relation to the Operational Areas**

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#### 4.6.4 Seabirds and Migratory Shorebirds

**Table 4-13: Threatened and Migratory Seabird and Migratory Shorebird Species predicted to occur within the Operational Areas and EMBA**

Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	Critically Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Macronectes giganteus</i>	Southern Giant Petrel	Endangered	Migratory	Species or species habitat may occur within area	N/A	N/A	Species or species habitat may occur within area
<i>Sternula nereis nereis</i>	Australian Fairy Tern	Vulnerable	N/A	Foraging, feeding or related behaviour likely to occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Breeding known to occur within area
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered	Migratory	Species or species habitat may occur within area	N/A	N/A	Species or species habitat known to occur within area
<i>Calidris canutus</i>	Red Knot, Knot	Endangered	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Phaethon lepturus fulvus</i>	Christmas Island White-tailed Tropicbird	Endangered	N/A	Species or species habitat may occur within area	Species or species habitat may occur within area	N/A	Species or species habitat may occur within area

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Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered	N/A	N/A	N/A	N/A	Species or species habitat likely to occur within area
<i>Thalassarche carteri</i>	Indian Yellow-nosed Albatross	Vulnerable	Migratory	N/A	N/A	N/A	Species or species habitat may occur within area
<i>Pterodroma mollis</i>	Soft-plumaged Petrel	Vulnerable	N/A	N/A	N/A	N/A	Species or species habitat may occur within area
<i>Limosa lapponica menzbieri</i>	Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit	Critically Endangered	N/A	N/A	N/A	N/A	Species or species habitat known to occur within area
<i>Actitis hypoleucos</i>	Common Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Fregata minor</i>	Great Frigatebird, Greater Frigatebird	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Phaethon lepturus</i>	White-tailed Tropicbird	N/A	Migratory	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	Species or species habitat known to occur within area

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Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Fregata ariel</i>	Lesser Frigatebird, Least Frigatebird	N/A	Migratory	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	Species or species habitat likely to occur within area
<i>Anous stolidus</i>	Common Noddy	N/A	Migratory	Species or species may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat likely to occur within area
<i>Calonectris leucomelas</i>	Streaked Shearwater	N/A	Migratory	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	Species or species habitat likely to occur within area
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat known to occur within area
<i>Calidris melanotos</i>	Pectoral Sandpiper	N/A	Migratory	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area	Species or species habitat may occur within area
<i>Onychoprion anaethetus</i>	Bridled Tern	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area
<i>Thalasseus bergii</i>	Greater Crested Tern	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area

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Species name	Common name	Threatened status	Migratory status	Potential for interaction			
				Area A	Area B	Area C	EMBA
<i>Limosa lapponica</i>	Bar-tailed Godwit	N/A	Migratory	N/A	N/A	N/A	Species or species habitat known to occur within area
<i>Hydroprogne caspia</i>	Caspian Tern	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area
<i>Apus pacificus</i>	Fork-tailed Swift	N/A	Migratory	N/A	N/A	N/A	Species or species habitat likely to occur within area
<i>Pandion haliaetus</i>	Osprey	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area
<i>Sterna dougallii</i>	Roseate Tern	N/A	Migratory	N/A	N/A	N/A	Breeding known to occur within area
<i>Sternula albifrons</i>	Little Tern	N/A	Migratory	N/A	N/A	N/A	Species or species habitat may occur within area
<i>Ardenna carneipes</i>	Flesh-footed Shearwater	N/A	Migratory	N/A	N/A	N/A	Species or species habitat likely to occur within area
<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	N/A	Migratory	Breeding known to occur within area	Breeding known to occur within area	Breeding known to occur within area	Breeding known to occur within area

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**Table 4-14: Seabird and Shorebird BIAs within the Operational Areas and EMBA**

Species	BIA type	Approximate Distance and Direction from Operational Areas (km)		
		Area A	Area B	Area C
Wedge-tailed Shearwater	Breeding (Montebello Islands, Lowendal Islands, Barrow Island, Mackerel Islands, Passage Islands, Dampier Archipelago, Legendre Island)	Overlaps	Overlaps	Overlaps
Australian Fairy Tern	Breeding (Pilbara and Gascoyne coasts and islands)	27 km south	95.5 km southwest	82.5 km south
Lesser Crested Tern	Breeding (Lowendal Islands, Thevenard Island)	33.5 km south	98.5 km southwest	126.5 km southwest
Roseate Tern	Breeding (Montebello Islands, Lowendal Islands, Barrow Island, Airlie Island, Dampier Archipelago, Legendre Island)	29.5 km south	80 km south-southeast	63.5 km south

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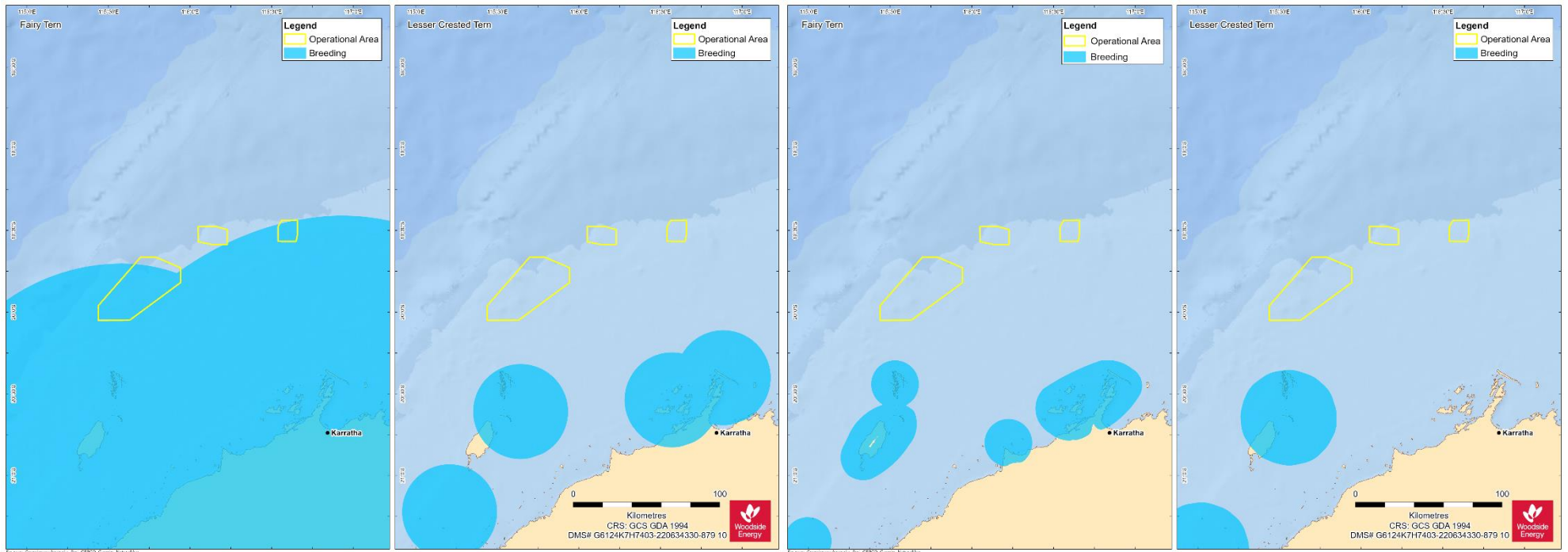


Figure 4-10: Seabird and migratory shorebird BIAs in relation to the Operational Areas

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### 4.6.5 Seasonal Sensitivities for Protected Species

Seasonal sensitivities for protected migratory species identified as potentially occurring within the Operational Areas are identified in Table 4-14. Movement patterns of all protected species identified in Section 4.6 are described in Section 5 of the Master Existing Environment.

**Table 4-15: Key seasonal sensitivities for protected migratory species with BIAs overlapping the EMBA.**

Species	January	February	March	April	May	June	July	August	September	October	November	December
<b>Fish, sharks and rays</b>												
Whale shark (NWMR) - foraging <sup>1</sup>							Yellow	Yellow	Yellow	Yellow	Yellow	
Whale shark (Ningaloo Coast) - foraging (high density prey) <sup>1</sup>			Yellow	Orange	Orange	Yellow	Yellow					
<b>Mammals</b>												
Pygmy blue whale (Exmouth, Montebello, Scott Reef) - northern migration <sup>2</sup>				Yellow	Orange	Orange	Yellow					
Pygmy blue whale (Exmouth, Montebello, Scott Reef) - southern migration <sup>2</sup>	Yellow									Yellow	Orange	Orange
Humpback whale (NWS) - northern migration <sup>3</sup>						Yellow	Orange	Orange	Yellow			
Humpback whale (NWS) - southern migration <sup>4</sup>									Orange	Orange	Yellow	
Dugong (Ningaloo Coast, Exmouth Gulf) - calving, nursing, breeding, foraging <sup>5</sup>	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Yellow
<b>Marine reptiles</b>												
Flatback turtle (Pilbara) - various nesting areas <sup>6</sup>	Orange	Yellow	Yellow								Yellow	Orange
Green turtle (NWS) - various nesting areas <sup>6</sup>	Orange	Orange	Yellow	Yellow								Yellow
Hawksbill turtle (WA) - various nesting areas <sup>6</sup>	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange
Loggerhead turtle (WA) - various nesting areas <sup>6</sup>	Orange	Yellow	Yellow	Yellow	Yellow						Yellow	Yellow
<b>Seabirds and shorebirds</b>												

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Species	January	February	March	April	May	June	July	August	September	October	November	December
Wedge-tailed Shearwater - various breeding sites <sup>7</sup>												
Australian Fairy Tern - various breeding sites <sup>8</sup>												
Lesser Crested Tern - various breeding sites <sup>9</sup>												
Roseate Tern - various breeding sites <sup>10</sup>												
Migratory shorebirds (general peak presence non-breeding)												
Species may be present in the EMBA												
Peak period. Presence of animals is reliable and predictable each year												

References for species seasonal sensitivities:

<sup>1</sup> TSSC, 2015; Wilson et al., 2006

<sup>2</sup> DSEWPaC, 2012; McCauley and Jenner, 2010; Double et al., 2012b, 2014

<sup>3</sup> Double et al., 2012; TSSC, 2015

<sup>4</sup> Double et al., 2010; TSSC, 2015

<sup>5</sup> DEWHA, 2008; Marsh et al., 2002; Preen et al., 1997

<sup>6</sup> Information regarding seasonal occurrence of marine turtles has been taken from the Recovery Plan for Marine Turtles in Australia 2017-2027 (Commonwealth of Australia, 2017).

<sup>7</sup> DSEWPaC 2012, Environment Australia 2002

<sup>8</sup> DSEWPaC 2012

<sup>9</sup> Hamza, A.A., 2014

<sup>10</sup> Burbidge and Fuller, 1998

#### 4.7 Key Ecological Features (KEFs)

One KEF overlaps three Operational Areas, and another KEF overlaps only Operational Area C. KEFs within the Operational Areas and EMBA are identified in Table 4-16 and described in Section 9 of the Master Existing Environment. Figure 4-11 shows the spatial overlap with KEFs and the Operational Areas and EMBA.

**Table 4-16: KEFs within the Operational Areas and EMBA.**

Key Ecological Feature	Distance and Direction from Operational Areas to KEF (km)		
	Area A	Area B	Area C
Ancient Coastline at 125m Depth Contour	Overlaps	Overlaps	Overlaps
Continental Slope Demersal Fish Communities	20 km northwest	60 km west	111 km west
Glomar Shoal	69 km east	35.5 km east	Overlaps
Exmouth Plateau	117 km northwest	172 km west	223.5 km west
Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula	175.5 km southwest	256 km southwest	290 km southwest

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Key Ecological Feature	Distance and Direction from Operational Areas to KEF (km)		
	Area A	Area B	Area C
Commonwealth waters adjacent to Ningaloo Reef	220 km southwest	301 km southwest	336 km southwest

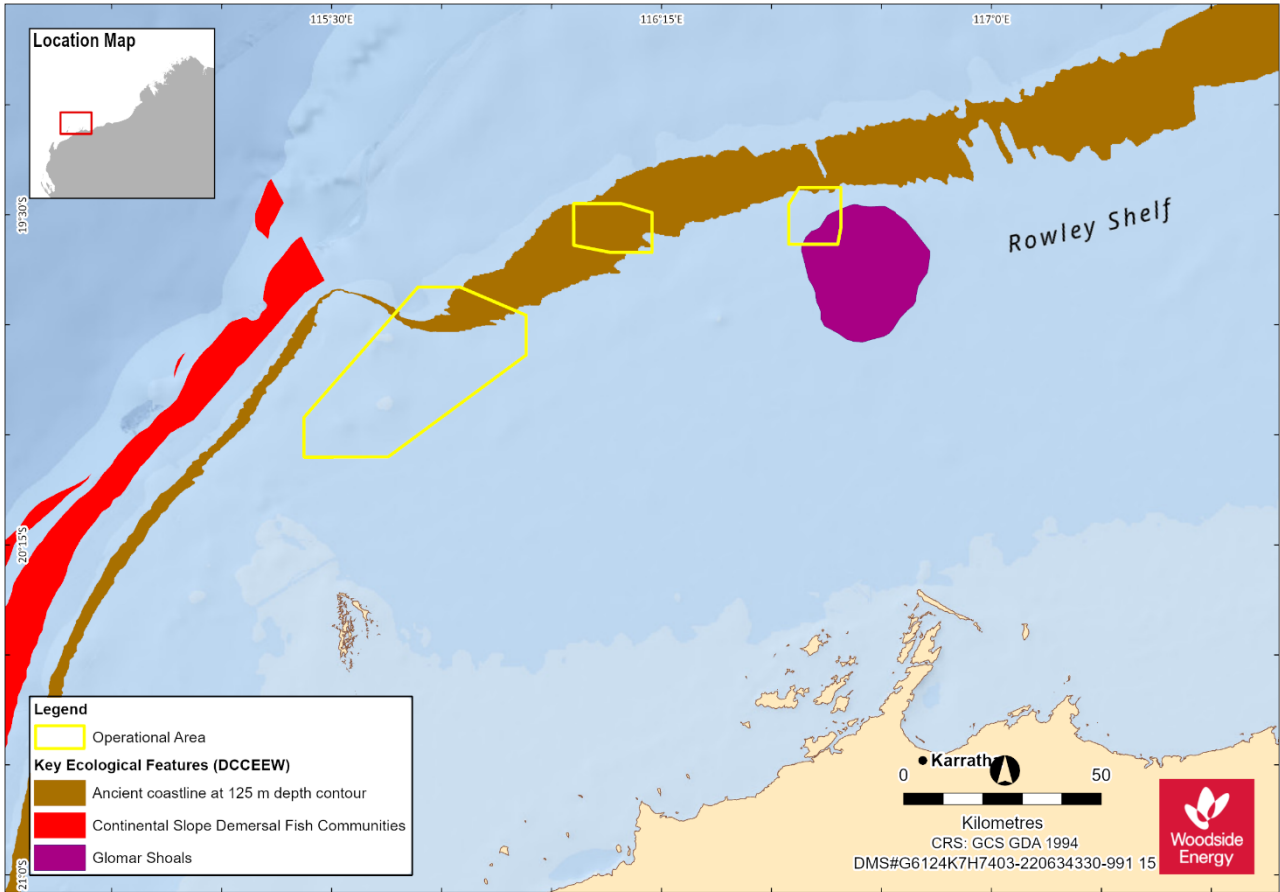


Figure 4-11: KEFs overlapping and adjacent to the Operational Areas

### 4.8 Protected Places

Protected places within the Operational Areas and EMBA are identified in Table 4-17 and presented in Figure 4-12. Section 10 of the Master Existing Environment describes the values and sensitivities of protected places and other sensitive areas in the EMBA.

Table 4-17: Established protected places and other sensitive areas overlapping the Operational Areas and EMBA

	Distance and Direction from Operational Areas to protected place or sensitive area (km)			IUCN category* or relevant park zone overlapping the Operational Areas and EMBA
	Area A	Area B	Area C	
<b>AMPs</b>				
Gascoyne Marine Park	191 km southwest	272 km southwest	318 km southwest	Special Purpose Zone - VI, Recreational Use Zone - IV

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	Distance and Direction from Operational Areas to protected place or sensitive area (km)			IUCN category* or relevant park zone overlapping the Operational Areas and EMBA
	Area A	Area B	Area C	
Montebello Marine Park	Overlaps	60 km south-west	81.5 km south-west	Multiple Use Zone - VI
Ningaloo Marine Park	221 km south-west	303 km south-west	336 km south-west	National Park Zone - II, Recreational Use Zone - IV
<b>State Marine Parks and Nature Reserves</b>				
<b>Marine Parks</b>				
Barrow Island Marine Park	76.5 km south	149 km south-west	180 km south-west	Sanctuary Zone - Ia
Montebello Islands Marine Park	26.5 km south	98 km south-west	130 km south-west	Sanctuary Zone Ia, Recreational Use Zone - IV, Special Purpose Zone - VI
Ningaloo Marine Park	222 km south-west	304km south-west	337 km south-west	National Park Zone - II, Recreational Use Zone - IV
<b>Marine Management Areas</b>				
Barrow Island Marine Management Area	56.5 km south	120.5 km south-west	149 km south-west	Special Purpose Zone - VI
Muiron Islands Marine Management Area	202 km south-west	283.5 km south-west	316 km south-west	Special Purpose Zone - VI, Sanctuary Zone - Ia
<b>Other sensitive areas</b>				
Glomar Shoal	68 km east	36 km east	Overlaps	N/A
Rankin Bank	Overlaps	~42 km north-east	~90 km north-east	N/A

\*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

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 and South-west Marine Parks Network Management Plan 2018.

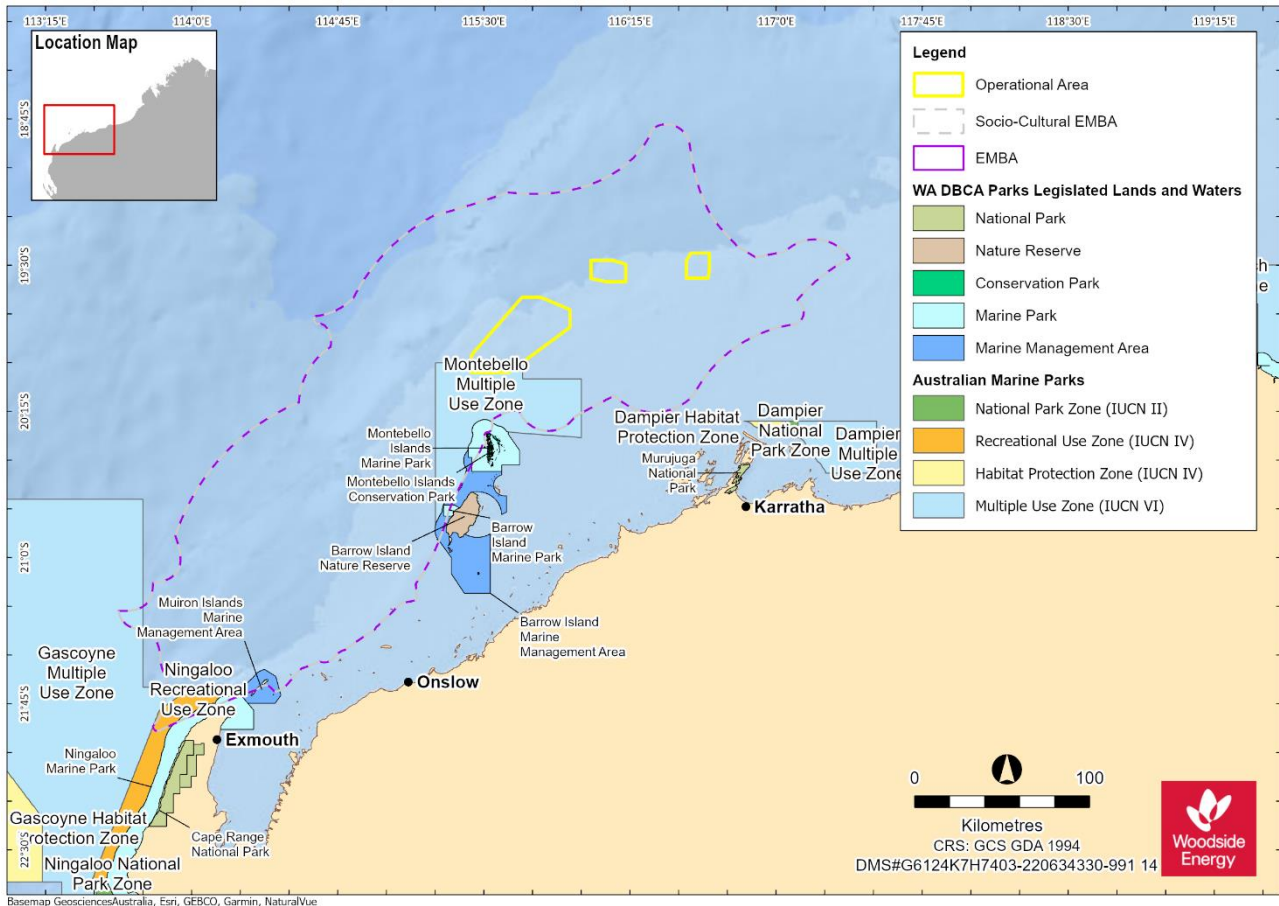


Figure 4-12: Protected Areas overlapping and adjacent to the Operational Areas and EMBA.

## 4.9 Cultural Features and Heritage Values

### 4.9.1 Background

Woodside recognises the 'environment' for the purpose of the evaluation required under the Environment Regulations includes:

- the heritage value of places; and
- the social, economic, and cultural features of the broader environment.

In this section, the heritage value of places within the Operational Areas and EMBA and the cultural features of the Operational Areas and EMBA are described.

In line with The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS 2013) (Burra Charter) and associated practice notes, Woodside understands heritage value to refer to the cultural significance of a place to an individual or group. A cultural feature, by contrast, is understood to be comparable to the Burra Charter term “fabric” and refer to a place’s elements, fixtures, contents and objects which have cultural values. Although these features are necessarily physical, the place they inhabit or comprise may have tangible or intangible dimensions (Australia ICOMOS 2013).

Through consultation with relevant persons, Woodside recognises the deep spiritual and cultural connection to the environment<sup>2</sup> that First Nations peoples hold.

#### 4.9.2 First Nations Peoples

As a starting point for understanding social and cultural features of the environment for Indigenous (First Nations) groups, Woodside uses the existing systems, such as native title, to identify Indigenous groups that may have functions, interests or activities that may be affected. To that end, Woodside identifies native title representative bodies and nominated representative entities, as well as native title claims, determinations and Indigenous Land Use Agreements (ILUAs) which the EMBA overlaps. Native title claims, determinations and ILUAs are defined under the Native Title Act 1993 (Cth). While acknowledging that cultural features and heritage values may exist outside of the native title framework, Woodside considers this to be the broadest extent over which Indigenous groups have claimed native title rights and interests.

Native title claims are applications made to the Federal Court under the Native Title Act for a determination or decision about native title in a particular area. A claim is made by a native title claim group which asserts it holds native title rights and interests in an area of land and/or water, according to its traditional laws and customs. By making a claim, the native title claim group seeks a decision that native title exists so that its native title rights and interests are recognised by the common law of Australia. This is called a native title determination. A determination is a decision by a recognised body, such as the Federal Court or High Court of Australia, that native title either does or does not exist in relation to a particular area ([National Native Title Tribunal](#)).

A requirement to establishing a positive determination of native title in court is proving that there is an organised society that occupied the land and/or waters at the time of British annexation. The requirement of an 'organised society' is set out by Justice Toohey in the historic judgment of *Mabo v Queensland (No 2)* [\[1992\] HCA 23](#); [\(1992\) 175 CLR 1](#) ('Mabo'). Justice Toohey had the following to say (at 187):

*it is inconceivable that indigenous inhabitants in occupation of land did not have a system by which land was utilized in a way determined by that society. There must, of course, be a society sufficiently organized to create and sustain rights and duties...*

Therefore, Woodside understands that native title rights and interests are held communally by an organised society, that native title claims are understood to represent the area over which Indigenous groups are claiming these rights and interests, and that native title determinations provide clarity on where native title rights and interests are found to either exist or not exist. Where native title rights or interests are determined to exist they will be held by a Registered Native Title Body Corporate (section 57, Native Title Act 1993) in trust or as agent for native title holders.

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<sup>2</sup> Definition of 'Environment' in Regulation 5 of the OPGGS (Environment) Regulations are defined as:

- a) Ecosystems and their constituent parts, including people and communities; and
- b) Natural and physical resources; and
- c) The qualities and characteristics of locations, places and areas; and
- d) The heritage values of places; and includes
- e) The social, economic and cultural features of the matters mentioned in paragraphs (a), (b), (c) and (d)

ILUAs are voluntary agreements between native title parties and other people or bodies about the use and management of land and/or waters and are registered by the Native Title Registrar in the Register of ILUAs. An ILUA can be made over areas where:

- native title has been determined to exist in at least part of the area; or
- a native title claim has been made; or
- where no native title claim has been made.

While registered, ILUAs operate as a contract between the parties, including relevant native title holders ([National Native Title Tribunal](#)).

The Native Title Act provides for a Representative Aboriginal/Torres Strait Islander Body (Native Title Representative Body) to be recognised by the Commonwealth Minister for an area. Native Title Representative Bodies have specialist functions set out in the Native Title Act within the area for which they are the Native Title Representative Body. However, the functions of a Native Title Representative Body are such that they do not hold details on the cultural features or heritage values of an area and therefore do not inform Woodside's understanding of heritage values or cultural features.

For the activity in this EP, there is one native title determination (Gnulli, Gnulli #2 and Gnulli #3 – Yinggarda, Baiyungu and Thalanyji People) that overlaps the EMBA (see Figure 4-13).

A summary of native title claims, determinations and ILUAs overlapping or coastally adjacent to the EMBA is set out in Table 4-18.

### 4.9.3 Coastally Adjacent First Nations groups

Woodside understands that First Nations groups are keenly aware of the extent of their rights, interests and responsibilities for Country, and these are generally discrete, defined areas, including areas of sea (Smyth 2007). To identify cultural features and heritage values which may exist outside of native title claim, determination and ILUA areas, Woodside considers native title claims, determinations and ILUAs coastally adjacent to the EMBA to be an instructive means of identifying potentially relevant Indigenous groups to be consulted (See Table 5-2).

That said, Woodside understands from engagement with stakeholders that extending a native title group's responsibility to areas which those groups have elected to not include in their claims or ILUAs can have significant cultural consequences for Indigenous groups and individuals. This may also, over time, build expectations in the broader Indigenous community that a group is responsible for maintaining environmental values in areas for which they do not hold traditional knowledge. Woodside also acknowledges that an Indigenous group's relative proximity to any Operational Areas or EMBA is not necessarily a meaningful indicator of the connection of Indigenous groups to the area, and providing advice over such areas can be culturally dangerous. As a result, caution must be used when conducting broader engagement.

For this EP no ILUAs overlap the Operational Area.

A summary of native title claims, determinations and ILUAs overlapping or coastally adjacent to the EMBA is set out in Table 4-18. Claims and determinations have not been differentiated in this table, as it is acknowledged that either of these may indicate the existence of rights and interests.



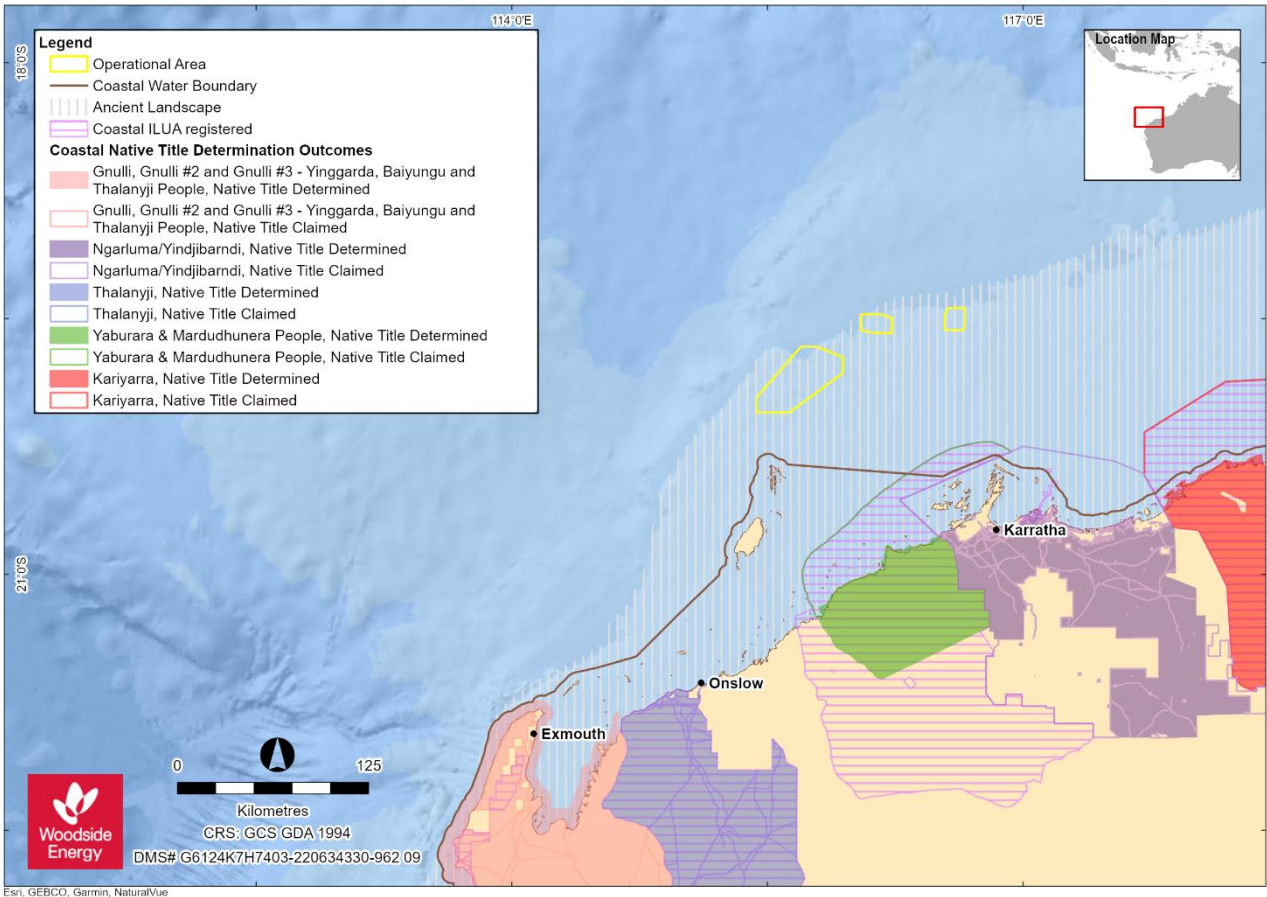


Figure 4-13: Operational Areas and EMBA in relation to native title claims, determinations and ILUAs.

Table 4-18: Summary of Native Title Claim or Determination and ILUA EMBA overlap and coastally adjacent

Native Title Claim	EMBA Traditional Custodian Group Overlap	Traditional Custodian Groups Coastally Adjacent to the EMBA
Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People	Yes – Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC), Yinggarda Aboriginal Corporation (YAC)	Yes – NTGAC, YAC
Kariyarra	No	Yes – Kariyarra Aboriginal Corporation (KAC)
Ngarluma/Yindjibarndi People	No	Yes – Ngarluma Aboriginal Corporation (NAC), Yindjibarndi Aboriginal Corporation
Thalanyji	No	Yes – Buurabalayji Thalanyji Aboriginal Corporation (BTAC)
Yaburara & Mardudhunera People	No	Yes – Wirrawandi Aboriginal Corporation (WAC)
<b>ILUA</b>		
Alinta-Kariyarra Electricity Infrastructure ILUA	No	Yes – however no Traditional Custodian group specified.
Anketell Port, Infrastructure Corridor and Industrial Estates Agreement	No	Yes – NAC

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Native Title Claim	EMBA Traditional Custodian Group Overlap	Traditional Custodian Groups Coastally Adjacent to the EMBA
Cape Preston Project Deed (YM Mardie ILUA)	No	Yes – WAC
Cape Preston West Export Facility	No	Yes – WAC
FMG - Kariyarra Land Access ILUA	No	Yes – however no Traditional Custodian group specified.
Kariyarra and State ILUA	No	Yes – Kariyarra Aboriginal Corporation
KM & YM ILUA	No	Yes – WAC, Robe River Kuruma Aboriginal Corporation (RRKAC)
Kuruma Marthudunera and Yaburara and Coastal Mardudhunera Indigenous Land Use Agreement	No	Yes – however no Traditional Custodian group specified.
Macedon ILUA	No	Yes – BTAC
RTIO Kuruma Marthudunera People ILUA	No	Yes – RRKAC
RTIO Ngarluma ILUA (Body Corporate Agreement)	No	Yes – NAC

#### 4.9.3.1 Marine Parks

Woodside acknowledges that Commonwealth and State Marine Park Management Plans have sought to recognise cultural values of Indigenous groups. Australian Marine Parks (AMP) describe this framework in the following way: ‘when making decisions about what can occur in marine parks and what action we will take to protect marine parks, we take values into account’. AMP summarises these values as natural values, cultural values, heritage values and socio-economic values. Woodside considers the management plans of marine parks that overlap the Operational Areas and the EMBA to determine whether cultural features and heritage places have been identified and whether there are Traditional Custodians or representative bodies referenced to contact regarding potential cultural features and heritage places.

The Operational Areas overlap features of the Montebello AMP. The EMBA overlaps features of a further two AMPs under the North-West Marine Parks Network Management Plan 2018. The Operational Areas do not overlap any State Marine Parks, however the EMBA overlaps six State Marine Parks. Where these plans specify identifiable representative bodies who may hold knowledge of heritage values or cultural features—including but not limited to Registered Native Title Bodies Corporate—these bodies are consulted (see Appendix F). Consultation with these groups may identify heritage values and cultural features beyond those addressed in the marine park management plans. One identifiable representative body was specified for one of the marine parks overlapped by the EMBA (see Table 4-19).

The marine park management plans did note for the Gascoyne, Montebello and Ningaloo AMPs that the Yamatji Marlpa Aboriginal Corporation (YMAC) is the relevant Native Title Representative Body. Consultation with YMAC included discussion of the Traditional Custodians who may hold knowledge of heritage values or cultural features (See Appendix F, Table 1).

**Table 4-19: Summary of Commonwealth and State Marine Park Management Plan EMBA overlap**

Marine Park Management Plan	EMBA Traditional Custodian Group Overlap
<b>Commonwealth Marine Park Management Plan</b>	
Montebello AMP	Yes - however no Traditional Custodian group specified.
Ningaloo AMP	Yes - however no Traditional Custodian group specified.
Gascoyne AMP	Yes – however no Traditional Custodian group specified.
<b>State Marine Park Management Plan</b>	
Barrow Island Marine Management Area	Yes – however no Traditional Custodian group specified.
Barrow Island Marine Park	Yes – however no Traditional Custodian group specified.
Montebello Islands Marine Park	Yes – however no Traditional Custodian group specified.
Muiron Islands Marine Management Area	Yes – however no Traditional Custodian group specified.
Muiron Islands Nature Reserve	Yes – however no Traditional Custodian group specified.
Ningaloo Marine Park	Yes – NTGAC

In the management plans for the AMPs it is noted that “Sea country is valued for Indigenous cultural identity, health and wellbeing.” Cultural identity is understood to refer to the fact that “essence of being a 'Saltwater' person is ontological rather than merely technological. That is, it is about how people relate spiritually to the sea and engage with spiritual forces that created it, the marine flora and fauna and people.” (McDonald and Phillips, 2021) This connection may be damaged where people are displaced or disrupted (e.g., during colonisation) or where there is a loss of technical skills or environmental knowledge (McDonald and Phillips, 2021), however no impacts of this nature are considered to arise from this PGGAP.

The Management Plan for the Ningaloo Marine Park and Muiron Islands Marine Management Area 2005 – 2015: Management Plan Number 52 (relating to the Muiron Islands Marine Management Area and Ningaloo Marine Park) notes the aesthetic values of the seascape as a cultural value and that “Panoramic vistas of turquoise lagoon waters, reefs, beaches, breaking surf and the blue open ocean beyond the reef line are major attractions of the reserves.” In particular, the plan notes that “Inappropriate structures along the coastline, on the islands and in the surrounding waters have the potential to degrade the aesthetic values of the reserves. Coastal developments and maritime infrastructure projects must therefore be planned with careful consideration of this issue.” As the PGGAP described in this EP does not include the addition of any structures within these parks, no impacts on the aesthetic values of these parks are anticipated.

A number of management plans for the state marine parks also note Indigenous and maritime heritage within the marine parks. These are addressed in **Section 4.9.3.1**.

#### 4.9.4 Sea Country Values

‘Sea Country’ can be defined as the area of sea over which a First Nations group has interests, cultural value, connection and use. It has been noted that “the saltwater peoples of the north-west are associated with discrete clan estates or tribal areas, often referred to in contemporary Aboriginal English as ‘saltwater country’ or ‘sea country’. ‘Country’ refers to more than just a geographical area: it is shorthand for all the values, places, resources, stories and cultural obligations associated with that geographical area.” (Smyth, 2007). “Sea country is valued for Indigenous cultural identity, health and wellbeing” (DNP, 2018a, 2018b). Cultural identity is understood to refer to the fact that “essence of being a 'Saltwater' person is ontological rather than merely technological. That is, it is about how people relate spiritually to the sea and engage with spiritual forces that created it, the marine flora and fauna and people” (McDonald and Phillips, 2021).



In terms of seascape extent, McNiven (2004) suggests that “for those mainland groups whose exploitation of the sea was limited to littoral resources, it is likely that seascapes extended no more than c. 20 to 30 km out to sea, out to the horizon and the limit of human visibility. However, in some coastal places, clouds that can be seen well over 100 km out to sea are imbued with spiritual significance. For those groups with elaborate canoe technology, seascapes extend well over the horizon.” While there is some evidence of traditional watercraft in Australia’s North West, the recorded evidence is limited to travel across inland rivers (e.g. Barber and Jackson, 2011) or travel between coastal islands (Paterson et al., 2019).

Woodside recognises the potential for marine ecosystems to include cultural features as well as environmental values. The link between environmental protection and cultural heritage protection is illustrated in the Australian Government’s Indigenous Protected Areas Program. The Indigenous Protected Areas program provides for “areas of land and sea managed by Indigenous groups as protected areas for biodiversity conservation...IPAs deliver environmental benefits...Managing IPAs also helps Indigenous communities protect the cultural values of their Country for future generations...” (DCCEEW, 2023). This intrinsic link concept is also described by MAC (2021) as it relates to the values of the marine environment that are of cultural importance to MAC based on engagement with their Elders and Murujuga Land and Sea Unit Rangers. Elders were clear that all living things in Mermaid Sound are connected and that Mermaid Sound and Dampier Archipelago (Murujuga) are considered one place where the entire environment and all ecosystems hold both cultural and environmental value, with these types of values (cultural and environmental) intrinsically linked (MAC, 2021 as cited in Woodside, 2023a).

Cultural features of coastal areas may include marine species that may travel many thousands of kilometres through areas with similar cultural values to multiple First Nations language groups. Some species may travel as far as 5000 km from Antarctica to the Kimberley region of Western Australia (Double et al., 2010, 2012), passing First Nations language groups along the entire west coast of Australia. Distribution and migratory patterns of migratory species are described in **Section 4.6**.

Sea Country values have been defined through desktop assessment of Sea Country values from publicly available sources and consultation with First Nations groups and individuals.

The process for identifying First Nations groups who may have interests and connection in Sea Country are set out in **Section 4.9.3**. The scope of advice Traditional Custodians were encouraged to provide through project consultation was not limited by reference to any particular boundaries or limits of Sea Country.

#### **4.9.4.1 Desktop Assessment of Sea Country Values**

##### *Cultural Features and Heritage Values Identified in Publicly Available Literature*

Publicly available sources were assessed for any records of previously identified Sea Country values or cultural features that may overlap with the EMBA or Operational Area. Where cultural features or Sea Country values were identified these are summarised in **Table 4-21** according to the First Nations groups (where identified or inferable) who hold these values. Except where specific references are made to cultural values, these are considered to be addressed through the management of environmental values and are not summarised in this section.

**Table 4-20: Cultural features and heritage values identified in publicly available literature**

First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
Gnulli (Baiyungu, Thalanyji, Yinggarda)	Feature: Resources including marine animals. Value: Traditional knowledge holds that ancestors live on the land and in the water. Therefore, people have obligations to access and care for these places (e.g. keeping them clean).	Peck on behalf of the Gnulli Native Title Claim Group v State of Western Australia [2019] FCA 2090	Possible (unspecified)	Possible (unspecified)
	Feature: Resources including mangrove crabs, gastropods, shellfish, dugong, turtle).	Morse 1993	Possible (turtle; Table 4-8) No (other resources)	Possible (turtle; Table 4-8) No (other resources)
Kariyarra	Value: Traditional knowledge recalls that a salt water serpent lives in the sea and brings fish to shore.	Zaunmayr, 2016	Possible (unspecified)	Possible (unspecified)
Ngarla-Ngarli (Mardudhunera, Ngarluma, Wong-Goo-Tt-Oo, Yaburara and/or Yindjibarndi)	Feature: Archaeological sites on Murujuga. Feature: Ceremonial sites. Feature: Dreaming sites.	Department of the Environment and Heritage, 2006	No No Possible (unspecified)	Possible (submerged) Possible (unspecified) Possible (unspecified)
	Value: Traditional knowledge recalls that the sea is a source of creation for flying foxes. Value: Petroglyphs are understood as permanent signs left by ancestral beings. Value: Petroglyphs depict the law. Value: Cultural obligations to look after places of special potency.	DEC, 2013	Possible (unspecified) No No Possible (unspecified) – unlikely given distance offshore No	Possible (unspecified) Possible Possible Possible (unspecified) – unlikely given distance offshore Possible
	Value: Petroglyphs are important in initiation and education.			
	Value: The sea is acknowledged as a starting point for songlines, including the flying fox songline.	MAC, 2023a	Possible (unspecified)	Possible (unspecified)

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	<p>Feature: Resources including fishes, turtles and dugong.</p> <p>Value: Traditional knowledge recalls a sea serpent which travelled from the coast to inland pools.</p>	Water Corporation, 2019	<p>Possible (turtle; Table 4-8)</p> <p>Possible (fish)</p> <p>No (dugong)</p> <p>Possible (unspecified)</p>	<p>Possible (turtle; Table 4-8)</p> <p>Possible (fish)</p> <p>Possible (dugong)</p> <p>Possible (unspecified)</p>
	<p>Value: Traditional knowledge recalls a water serpent from the ocean now lives in an inland pool. He created many sites and punishes law breakers.</p> <p>Value: In a separate account, a sea serpent punishing people was driven back to the sea by a freshwater serpent.</p>	Barber and Jackson, 2011	<p>Possible (unspecified)</p> <p>Possible (unspecified)</p>	<p>Possible (unspecified)</p> <p>Possible (unspecified)</p>
	Value: Traditional knowledge recalls Manggan created the seas.	NAC n.d.	Yes	Yes
	Value: Traditional knowledge recalls Pannawonica Hill being carried from the sea near Barrow Island or Murujuga by a spirit bird.	Hook et al., 2004	Possible (unspecified)	Likely
	Value: Traditional knowledge recalls Murujuga is where ancestral beings emerged from the sea and brought the Law.	Australian Heritage Council, 2012	Possible (unspecified)	Possible (unspecified)
	<p>Feature: Submerged First Nations archaeological sites in Cape Bruguieres channel.</p> <p>Feature: Submerged First Nations archaeological sites in Flying Foam Passage.</p>	Benjamin et al., 2020	<p>No</p> <p>No</p>	<p>Possible</p> <p>No</p>
	<p>Feature: Submerged First Nations archaeological sites in Cape Bruguieres channel.</p> <p>Feature: Submerged First Nations archaeological sites in Flying Foam Passage.</p>	Benjamin et al., 2023	<p>No</p> <p>No</p>	<p>Possible</p> <p>No</p>
	Value: Traditional knowledge recalls Maarga (creation ancestors) lifted the land and sky out of the ocean.	Milroy and Revell, 2013	Possible (unspecified)	Possible (unspecified)
	Value: Traditional knowledge recalls Maarga (creation ancestors) lifted the land and sky out of the ocean.	Japingka Aboriginal Art Gallery, 2023	Possible (unspecified)	Possible (unspecified)

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	Feature: Submerged waterholes related to the Kangaroo songline.  Value: Traditional knowledge holds that Songlines continue beyond the current coast and across the submerged landscape.	Kearney et al., 2023	Possible (submerged)  Possible (unspecified)	Possible (submerged)  Possible (unspecified)
	Value: Songlines are captured through storytelling, rock art, songs and dance, and in the landmarks themselves.  Value: Murujuga is the start of many songlines, including the Seven Sisters.	Bainger, 2021	No  No	Possible  Possible (unspecified)
	Value: Songlines at Murujuga date back to times when the sea-level was lower.	MAC, 2023b	No	Possible (unspecified)
	Feature: Rock art. Feature: Sacred sites.	Weerianna Street Media Production, 2017	No Possible (unspecified)	Possible Possible (unspecified)
	Feature: Resources including fish, turtles.  Feature: Fish traps exist throughout the archipelago. Feature: Shell middens exist on coastal margins. Feature: Submerged archaeological sites.  Value: Law emerged from the sea and travelled inland.	Leach, 2020	Possible (turtle; Table 4-8) Possible (fish) No No Possible (submerged) Possible (unspecified)	Possible (turtle; Table 4-8) Possible (fish) Possible Possible Possible (submerged) Possible (unspecified)
	Feature: Archaeological sites on Murujuga.	McDonald, 2023	No	No
	Feature: Archaeological sites on Murujuga.	McDonald, 2015	No	No
	Feature: Archaeological sites on Enderby Island.	McDonald et al., 2022a	No	No
	Feature: Archaeological sites on Rosemary Island.	McDonald et al., 2022b	No	No
	Feature: Petroglyphs on Murujuga.	Mulvaney, 2015	No	No

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	Feature: Resources including mangrove seeds, turtles, turtle eggs).  Value: It is recalled that ceremonies were conducted on islands.	Smyth, 2007	Possible (turtle; Table 4-8) No (other resources) No (onshore)	Possible (turtle; Table 4-8) No (other resources) Possible
	Feature: Petroglyph and other archaeological sites at Murujuga.	Dortch et al., 2019	No	Possible (submerged)
Thalanyji	Feature: Resources including fish, shellfish, crabs, crustaceans, sea urchins, turtle, dugong and flora and fauna associated with mangrove communities.  Feature: Archaeological sites on Barrow Island. Value: Connection to Country.	Commonwealth of Australia, 2002	Possible (turtle; Table 4-8) Possible (fish) No (dugongs, other resources) No (onshore) Possible (unspecified)	Possible (turtle; Table 4-8) Possible (fish, other resources) Possible (dugongs) No (onshore) Possible (unspecified)
	Feature: Resources include turtles, eggs, fish, shellfish and plants.	DBCA et al., 2002	Possible (turtle; Table 4-8) Possible (fish) No (other resources)	Possible (turtle; Table 4-8) Possible (fish) No (other resources)
	Value: Traditional knowledge recalls a water snake is located in inland waters.	Hayes on behalf of the Thalanyji People v State of Western Australia [2008] FCA 1487	No (inland waters)	No (inland waters)
	Value: Connection to Country. Value: Transfer of knowledge. Value: Access to Country.	DBCA, 2022	Possible (unspecified) Possible (unspecified) Possible (unspecified)	Possible (unspecified) Possible (unspecified) Possible (unspecified)
	Value: Access to Barrow and possibly Montebello Islands.	Hook et al., 2004	No	Possible

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	Feature: Artefact scatters are located in coastal sand dunes.	Hook, 2020	No	No shoreline accumulation areas
	Feature: Burials are located in coastal sand dunes.		No	No shoreline accumulation areas
	Value: Traditional knowledge recalls a water snake is located in inland waters.		No	No
	Feature: Archaeological sites are located on Barrow Island.	Ditchfield et al., 2018	No	No shoreline accumulation areas
	Feature: Thalu ceremonial sites for the increase of turtle, shark, ray, fish, squid, octopus, hill kangaroo and emu.  Feature: Ceremonies. Value: Connection to Country. Value: Transfer of knowledge. Value: Access to Country.	DBCA, 2022	No  No Possible Possible Possible	No (ceremonial use) Possible (submerged thalu sites; e.g. petroglyphs) No Possible Possible Possible
	Feature: Archaeological sites are located at Barrow and Montebello Islands.  Feature: Archaeological evidence of the use of resources including fish, turtles, marine mammals, crocodiles, crabs and sea urchins.	Dortch et al., 2019	No  No	No shoreline accumulation areas Possible (submerged, highly unlikely for most evidence of faunal use to survive inundation)
Feature: Archaeological sites are located on Barrow Island.	Paterson, 2017	No	No shoreline accumulation areas	
Unspecified	Feature: The ocean can include sacred sites and songlines. Value: People have kin relationships to important animals, plants tides and currents.	Smyth, 2008	Possible (unspecified) Possible (unspecified)	Possible (unspecified) Possible (unspecified)
	Feature: Archaeological sites in submerged landscapes.	Bradshaw, 2021	Possible (submerged)	Possible (submerged)

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	Value: Sea Country has customary law defining ownership and management rights and responsibilities.	Muller, 2008	Possible (unspecified)	Possible (unspecified)
	Value: Knowledge of Sea Country. Value: Connection to Sea Country. Value: Care for Sea Country. Value: The extent of Sea Country is determined by the travels of dreaming ancestors. This is recorded and conveyed through songlines.	Kearney et al., 2023	Possible (unspecified) Possible (unspecified) Possible (unspecified) Possible (unspecified)	Possible (unspecified) Possible (unspecified) Possible (unspecified) Possible (unspecified)
	Feature: Archaeological sites indicate that islands were occupied prior to sea level rise.	DBCA, 2020	No	No
	Value: Sea Country includes values, places, resources, stories and cultural obligations. Value: Activities relating to resources included: <ul style="list-style-type: none"> <li>• dugong hunting</li> <li>• turtle hunting</li> <li>• turtle egg collecting</li> <li>• seabird egg collecting</li> <li>• spearing fish</li> <li>• reef trapping fish</li> <li>• herding fish</li> <li>• line fishing</li> <li>• collecting fish in stone fish traps</li> <li>• poisoning fish</li> <li>• gathering shellfish and other marine resources.</li> </ul>	Smyth, 2007	Possible (unspecified)  Possible (unspecified)	Possible (unspecified)  Possible (unspecified)
	Value: People have kinship relationships with every plant and animal. Value: Certain species, including fish and seafood, must not be eaten during initiation rituals due to their sacredness to the creation being Barrimirndi. Breaking this law may lead to cyclones.	Juluwarlu, 2004	Possible (unspecified) No	Possible (unspecified) No

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First Nations Group	Features and Values	Source	Potential for Overlap	
			Operational Area	EMBA
	Feature: Tangible and intangible heritage. Feature: Archaeological evidence of varied occupation and adaptation.  Value: A distinct way of life centred around the use of limited water and coastal resources.	Macfarlane and McConnell, 2017	Possible (unspecified) Possible (submerged)  No	Possible (unspecified) Possible (submerged, highly unlikely for most evidence of faunal use to survive inundation) No

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#### 4.9.4.2 First Nations Archaeological Heritage Assessment

Woodside understands that communal cultural connection may exist between Traditional Custodians and land and waters. It is understood from the onshore archaeological record that Aboriginal people have occupied the Australian continent for at least 65,000 years (Clarkson et al 2017) and in many places maintain a strong continuing connection that is said to extend back in Indigenous cosmology to the beginning of time.

It is understood that the sea level has risen significantly during the 65,000 years of Indigenous occupation, and areas that were once inhabited are now submerged on the continental shelf (Veth et al 2019; UWA 2021). Woodside also understands that, at its lowest level during First Nations occupation, sea level was between 125 m (O’Leary et al 2020, Veth et al 2019, Williams et al 2018) and 130 m below current levels (Benjamin et al 2020, Benjamin et al 2023, UWA 2021). Archaeological material preserved on the Ancient Landscape has the potential to provide further information about the earliest periods of human occupation (Veth et al 2019; UWA 2021).

Recent archaeological discoveries demonstrate that the now submerged landscape was occupied and inhabited and can retain archaeological material from this time (Benjamin et al, 2020; see Ward et al 2021 for an opposing view).

In recognition of this, Woodside considers the Ancient Landscape between the mainland and the Ancient Coastline KEF as an area where potential Indigenous archaeological material may exist on the seabed, as this covers the full extent of this possible Indigenous occupation. Known Indigenous heritage places including archaeological sites may be protected subject to declarations under the Aboriginal and Torres Strait Islander Heritage Protection Act 1984, Underwater Cultural Heritage Act 2018 or EPBC Act 1999. However, these Acts only extend protection to heritage places specified by declaration or otherwise included on a statutory list. Woodside understands that there is no Indigenous archaeology known to exist anywhere within Commonwealth waters and no declarations or prescriptions under these Acts are located within the EMBA.

For this EP, a search of DPLH’s ACHIS was undertaken, which showed no Registered Aboriginal Sites or Other Heritage Places in the EMBA (see Appendix D). The Operational Areas intersect part of the Ancient Landscape but also extends beyond the furthest extent of the Ancient Landscape.

Archaeological material on the Ancient Landscape is a relevant matter for the proposed activity as there is overlap between the Operational Areas and the Ancient Landscape, and potential for seabed disturbance from planned activities and therefore potential for impacts to archaeological material. Assessment of the potential for archaeological material to be impacted by the PGGAP is discussed in Section 6.5 and 6.6. These assessments did not identify any archaeological sites or values in Commonwealth waters that may be impacted by the PGGAP.

In Australia until recently, the consideration of submerged archaeological sites has generally focused on the sub-discipline of maritime archaeology with connection to Australian Indigenous archaeology through studies of Indigenous fish-traps, whaling stations and shipwreck survivor camps. However, with the exception of Indigenous fish traps in intertidal zones, the consideration of Indigenous heritage sites submerged by post-glacial sea-level rise has only recently been considered (Mott, 2019).

There has been long and continuous occupation of the coastal Pilbara region as evidenced by scientific studies (Balme et al., 2009; McDonald et al., 2018; Veth et al., 2017). Petroglyph motifs feature a range of subject matter with many examples depicting extinct fauna and early stylistic techniques (McNickle, 1984; McDonald, 2005; Mulvaney, 2009, 2010, 2013).

In order to assess and define potential for preservation of submerged Late Pleistocene and Holocene sediment bodies that may contain preserved archaeological deposits, modelling on continental shelf development in the Dampier Archipelago has been undertaken. Analysis and modelling between the Last Glacial Maximum, through the Holocene marine transgression and up to the present day has

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shown that archaeological materials, if present, would most likely be evident in deposits associated with the early phases of inundation of the Dampier Archipelago, dating from around 9 to 7 ka before present (BP) (Ward et al., 2013). In contrast, the study proposes that coastal archaeology older than about 12 ka BP, when the post-glacial sea levels were below about 50 m, will have been exposed to a phase of faster tidal currents on the continental shelf, and hence eroded or poorly preserved (Ward et al., 2013).

Through the Deep History of Sea Country (DHSC) project, researchers undertook a systematic and hierarchical approach to underwater investigation of the submerged landscapes at Murujuga (Dampier Archipelago). The researchers looked at the previously recorded Indigenous heritage sites from terrestrial surveys and used principles of geological, geomorphological and environmental associations to extrapolate to submerged landscapes. Where possible, the research considered submerged landscape principles as comparable but recognised that a range of factors may affect direct comparisons. A major constraint to any comparative studies is the shortage of marine stratigraphic, paleo-environmental, or geochronological data, and thus comparisons were initially divided into hard (crystalline) rock and soft (sedimentary) rock contexts, with the relative age of a potential site or deposit based on bathymetry (i.e., depth below modern sea level) and morphological setting. These essentially inform and delineate prospective target areas for broad-scale underwater mapping (Veth et al., 2019).

The sites considered most likely to survive inundation, based on the review of existing literature, were logically the more robust forms including:

- midden and artefacts within cemented dunes, relict water holes, and beach rock deposits
- quarry outcrops, extraction pits, and associated reduction debris in fine-grained volcanic outcrops
- curvilinear stone structures and standing stones sitting on volcanic pavements and jammed into volcanic rock piles
- lag deposits of artefacts and possibly midden on hardpan in suitable landscape contexts with good preservation conditions (e.g. shallow declination shorelines in sheltered passages of the inner archipelago or on the leeward side of hard-rock/fringing reef causeways adjacent to the outer islands)
- small overhangs and shelters with preserved deposits, facing away from the dominant wave and wind action. (Veth et al., 2019)

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 (see Section 7.6).

Where Indigenous archaeological material is identified within the EMBA, Woodside will discuss the management of this material with appropriate Traditional Custodian group(s), starting with any adjacent Native Title Body Corporate.

#### **4.9.4.1 Consultation Feedback to Inform Existing Environment**

##### *Summary of Values Raised During Consultation*

A summary of the topics/interests and values raised by First Nations groups through consultations on this PPGAP, or raised in context of other activities are provided in Table 4-21. It should be noted that no interests or cultural values were raised specifically in relation to this PPGAP, and the information presented in Table 4-21 was shared during consultation on other Environment Plans.

First Nations cultural values are communally held. This is reflected in Vision 3 of Dhawura Ngilan that “Aboriginal and Torres Strait Islander heritage is managed...according to community ownership”

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(Heritage Chairs of Australia and New Zealand 2020). Dhawura Ngilan also specifically notes that “Aboriginal and Torres Strait Islander...intangible knowledge systems, which are held in songlines and language, are endangered. This knowledge is held by Elders and the community.” Through consultation, Registered Native Title Bodies Corporate and nominated representative corporations have identified or raised topics relating to environmental values of cultural interest. Woodside recognises the deep spiritual and cultural connection to the environment<sup>3</sup> that First Nations people hold.

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<sup>3</sup> Definition of ‘Environment’ in regulation 5 of the OPPGS (Environment) Regulations are defined as:

- a) ecosystems and their constituent parts, including people and communities
- b) natural and physical resources
- c) the qualities and characteristics of locations, places and areas
- d) the heritage values of places, and includes
- e) the social, economic and cultural features of the matters mentioned in paragraphs (a), (b), (c) and (d).

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**Table 4-21: Feedback received via consultation to inform Existing Environment Description**

Relevant First Nations Group/ Individuals	Consultation Context	Description of Feature and Value/Interest	Potential for Overlap	
			Operational Area	EMBA
BTAC representing some of the Gnulli native title claimants (Baiyungu and Thalanyji people)	Raised in context of consultation on activities subject to other EPs	Value: Cultural obligation to care for the environmental values of Sea Country. Sea Country extends “out to the vast islands off the coast of the Pilbara, including the Monte Bello Islands, Barrow Island, and the Mackerel Islands”.	Possible (unspecified)	Possible (unspecified)
Murujuga Aboriginal Corporation representing Ngarda-Ngarli people (Mardudhunera, Ngarluma, Wong-Goo-Tt-Oo, Yaburara and Yindjibarndi)	Raised in context of consultation on activities subject to other EPs	Value: Mermaid Sound – ecosystem health.	Possible	Possible
		Feature: Whale. Value: A whale Thalu is an increase at a totemic site that brings whales into beach.	Possible (Table 4-12) Possible (unspecified)	Possible (Table 4-12) Possible (unspecified)
		Value: Whales and other species of totemic importance need to be protected, including their populations, biodiversity and migration patterns.	Possible	Possible
		Value: Whales are culturally important species that migrate through Mermaid Sound. Humpback whales in particular.	Possible	Possible
		Feature: Dolphins. Value: There are cultural ceremonies associated with communicating with dolphins.	Possible Possible (unspecified)	Possible Possible (unspecified)
		Feature: Dugongs. Value: Dugongs are a food source associated with seagrasses near Gidley Island.	No No	No No
		Feature: Fish. Value: There are Thalu ceremonies associated with increasing fish stocks.	Possible Possible (unspecified)	Possible Possible (unspecified)
Feature: Sea snakes. Specifically mentioned as culturally important species.	Possible	Possible		

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Relevant First Nations Group/ Individuals	Consultation Context	Description of Feature and Value/Interest	Potential for Overlap	
			Operational Area	EMBA
		<p>Feature: Flatback, green, hawksbill, loggerhead and leatherback turtles. Turtles are culturally important species that moves through Mermaid Sound. Turtles are most often seen in shallower areas and where there are seagrasses.</p> <p>Most beaches are nesting sites for turtles, including those on Gidley and Legendre Islands.</p> <p>Value: The songline associated with the turtle comes from Fortescue to Withnell Bay. This song is sung by four or five tribes for day and night without consuming food or water.</p>	<p>Possible (turtles; Table 4-8)</p> <p>No</p> <p>Possible</p> <p>Possible</p>	<p>Possible (Table 4-8)</p> <p>No</p> <p>Possible</p> <p>Possible</p>
		<p>Interest: Coral. Fish are attracted to areas with coral. Concerned about coral bleaching because corals are important. Beautiful colours. They also attract a lot of other things.</p> <p>Fish carry coral spawn like bees pollinate flowers. If fish were looked after, the corals would get brighter and brighter (by transmitting nutrients and performing other ecosystem services, fish can be symbiotic with corals).</p> <p>Spawning events should be avoided (associated with full moon).</p> <p>Locations identified during consultation include Withnell Bay; Conzinc Bay; south-west of Legendre Island.</p>	No	No
		<p>Feature: Seagrass. Seagrasses provide protection for animals</p> <p>Locations identified during consultation include Conzinc Island; between Angel and Gidley Island.</p>	No	No

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Relevant First Nations Group/ Individuals	Consultation Context	Description of Feature and Value/Interest	Potential for Overlap	
			Operational Area	EMBA
		Value: Mangroves would have provided shelter, crabbing, digging for shellfish, could be turtle nurseries. Locations identified during consultation include Conzinc Bay north end; Flying Foam Passage; Searipple Passage; north-east bay of West Lewis Island.	No	No
		Interest: Macroalgal communities, which are important primary production sites, habitats, and food sources (not explicitly identified by elders).	No	No
		Interest: Subtidal soft-bottom communities, which support invertebrate diversity (not explicitly identified by elders).	No	Yes
		Interest: Intertidal sand and mudflat communities, which are important primary production sites, support invertebrate diversity and provide food for shorebirds (not explicitly identified by elders).	No	Yes
		Interest: Rocky shores, which are habitats for intertidal organisms and provide food for shorebirds (not explicitly identified by elders).	No	Yes
		Feature: Fish traps. There are known fish traps in Conzinc Bay, and others would have or do exist in coastal areas of islands, such as Angel and Gidley Islands. People still use the Conzinc Bay fish traps regularly for catching mangrove jack, trevally and other fish. Value: Squidding (harvesting of squid from the ocean) around Conzinc Island.	No	No
Ngarluma Aboriginal Corporation (NAC)	No values raised	-	-	-

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Relevant First Nations Group/ Individuals	Consultation Context	Description of Feature and Value/Interest	Potential for Overlap	
			Operational Area	EMBA
Ngarluma Yindjibarndi Foundation Limited (NYFL)	No values raised	-	-	-
Nghanurra Thanardi Garrbu Aboriginal Corporation representing Baiyungu and Thalanyji people	Raised in context of consultation on activities subject to other EPs	Interest: Whales – query regarding noise impacts, monitoring and operational responses to whale sightings.	Possible	Possible
	Raised in context of decommissioning activities	Interest: Whale sharks – query regarding activity timing. Interest: Marine parks – query regarding risks from activity in relation to decommissioning.	No No	Possible Possible (Marine parks in EMBA but noting no decommissioning under this PGGAP)
Robe River Kuruma Aboriginal Corporation (RRKAC)	Raised in context of consultation on activities subject to other EPs	Feature: Underwater heritage.	Possible	Possible
Wirrawandi Aboriginal Corporation representing Ngarda-Ngarli (Mardudhunera and Yaburara)	Raised in context of consultation on activities subject to other EPs	Interest: Whales – query with regard to whale migration and timing of project activities; impact of noise on whale communication. Interest: Turtles – query with regard to turtle monitoring programs. Interest: Underwater heritage – query with regard to where sites have been recently found.	Possible Possible Possible	Possible Possible Possible
	Raised in context of decommissioning activities	Interest: Rock art – query whether air emissions from activities impacts rock art and controls to minimise potential impacts.	Possible (submerged)	Possible
Yamatji Marlpa Aboriginal Corporation (YMAC)	No values raised	-	-	-
Kariyarra Aboriginal Corporation (KAC)	Raised in context of consultation on this activity and activities subject to other EPs	Value / Interest: Kariyarra have values and interests in Sea Country including traditional fishing and gathering rights in the ocean.	Possible	Possible
		Value: Presence of mythic snakes and Yinta; associated with Sea Country.	Possible	Possible
		Feature: dugongs	No	Possible

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Relevant First Nations Group/ Individuals	Consultation Context	Description of Feature and Value/Interest	Potential for Overlap	
			Operational Area	EMBA
		Feature: (majun) marine turtles and turtle eggs	Possible	Marine turtles Possible Turtle eggs No (EMBA does not reach shoreline)
		Feature/Value: stingrays (barbs used for spears)	Possible	Possible
		Feature: fish	Possible	Possible
		Feature: shellfish	No	Possible
		Value/ Interest: various resource species including marine mammals, fish, molloscs (bivalves, gastropods and cephalopods).	Possible	Possible
		Value: cultural knowledge transfer	No	No
		Interest: offshore islands (low tide)	No	Possible (unspecified)
		Value: care for Country, including Sea Country	Possible	Possible
		Interest: avoid impacts on coastal landforms and coastal native vegetation	No	No (EMBA does not reach shoreline)
		Interest: tangible cultural heritage (sites) associated with the coast/ocean	No	No (Kariyarra's coastal tangible heritage is outside of EMBA)
		Interest: intangible cultural heritage associated with the coast/ocean	Possible	Possible
Yindjibarndi Aboriginal Corporation (YAC)	No values raised	-	-	-
Yinggarda Aboriginal Corporation representing Yinggarda People	Raised in context of consultation on activities subject to other EPs	Interest: Whales – query with regard to potential impacts to whale migration patterns and impacts from vessel collision.	Possible	Possible
		Value: Shark Bay mullet – important resource.	No (coastal species)	No (coastal species)
		Interest: Dugong – raised in context of Shark Bay	No	No
		Interest: Seagrass being food source for Dugong	No	No

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## Further Context: Intangible Cultural Heritage

Intangible cultural heritage has been identified through consultation with First Nations people as culturally important. Cultural knowledge, as expressed through songlines, dreaming, dance and other cultural practices, can be associated with tangible objects and physical sites that are culturally important to First Nations people (Adler, 2021; Bursill et al., 2007). Intangible cultural heritage can also be embodied in the practices, representations, expressions, knowledge, uses and skills associated with physical sites (UNESCO, 2003). As a result, physical features may have intangible dimensions (ICOMOS, 2013).

### 4.9.4.2 Songlines

Oral Songlines are often described by First Nations people as the law of the land and make up part of the Dreaming (Neale and Kelly, 2020:30). Songlines are viewed in Western academia as a framework for relating people to land and consist of a series of invisible, interconnected routes across the landscape that mark significant sites for First Nations people (Higgins, 2021:723). Songlines demonstrate First Nations peoples' strong connections to land by revealing sacred knowledge that is place-specific (Roberts, 2023:5). The land's physical features are instrumental in maintaining songlines because this is how ancestral spirits journeyed through, and interacted with, the physical landscape leaving sacred knowledge behind. The interconnection between the physical and spiritual is where songlines become intrinsically tied to significant places across Country. As a result, geographical landforms are recorded within songlines and become sacred places. Such landforms can include inter alia: rocks, mountains, rivers, caves and hills (Higgins, 2021:724). Songlines can become lost, fragmented or broken when there is a loss of Country or forced removal from Country (Neale and Kelly, 2020:30). Physical sites that have been identified as comprising a component of a songline are important to protect to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge.

In Australia, songlines can stretch thousands of kilometres, making up a complex and organic network of stories containing cultural knowledge of First Nations communities across the land (Neale and Kelly, 2020:35). Songlines can also extend out to Sea Country and contain cultural knowledge that is tied to geographic features, atmospheric phenomena and marine plants and animals. Often songlines containing references to a seascape or Sea Country make mention of mythical events occurring around marine life, fishing areas, submerged rocks or coral. Songlines that embody seascapes can reflect how a group may relate to, or value, Sea Country; for example. connections to nearby islands that they once inhabited in their songlines (Smyth and Isherwood, 2016:307). Songlines can also be used as proof of long-standing connection to land and support a legal entitlement to land rights (Higgins, 2021:74). Examples where songlines contain strong references to Sea Country are more common in Pacific Islander and Torres Strait Islander communities, who often refer to seascapes and skylines in their songlines in order to communicate sacred knowledge that assists in safe navigation of the ocean (Neale and Kelly, 2020:83-84).

The routes of any songlines in the EMBA have not been provided by Traditional Custodians through consultation.

### 4.9.4.3 Creation/Dreaming Sites, Sacred Sites and Ancestral Beings

The only sources located by Woodside with detailed descriptions of the location ancestral beings or creation/dreaming/sacred sites placed these on land or within inland water sources such as rivers or pools. However, some ancestral beings are noted to live within or originate from the sea generally, and some creation stories talk to the creation of features from or in the sea. Additionally, every place on shore or at sea must be assumed to have been created on some level in First Nations cosmology.

#### **4.9.4.4 Cultural Obligations to Care for Country**

Caring for Country collectively refers to the cultural obligations of individuals and groups, as well as rituals and ceremonies required for the physical and spiritual health of the environment. In the literature reviewed by Woodside, caring for Country was noted to include, but is not limited to, maintenance of the physical environment and ecosystem. It may also have cultural, spiritual and ritual dimensions such as caring for ancestral beings or ensuring cultural safety. Thalu are places where increase ceremonies are performed to enhance or maintain populations of plants, animals or phenomena. All mentions of active ceremonial sites were confined to onshore locations, though the values may extend offshore where, for example, a thalu relates to marine species populations.

#### **4.9.4.5 Knowledge of Country/Customary Law and Transfer of Knowledge**

Knowledge of and familiarity with the features of Sea Country is itself a value. The inherent potential for restricted or secret knowledge makes this difficult to assess even through consultation with Traditional Custodians. However, aspects such as limitations on access to sites or disruption/relocation of First Nations communities may have implications for the preservation of First Nations knowledge. Further, connection to Country may be damaged where people are displaced or disrupted (e.g. during colonisation) or where there is a loss of technical skills or environmental knowledge (McDonald and Phillips, 2021).

Transfer of knowledge includes continuing traditional practices to pass on practical skills. This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO, 2003).

#### **4.9.4.6 Connection to Country**

Connection to Country describes the multi-faceted relationship between First nations people and the landscape, which is envisioned as having personhood and spirit. It is also an aspect of personal identity for many First nations people. In the case of Sea Country this can mean identifying as a Saltwater person, where "essence of being a 'Saltwater' person is ontological... it is about how people relate spiritually to the sea and engage with spiritual forces that created it, the marine flora and fauna and people" (McDonald and Phillips, 2021).

#### **4.9.4.7 Access to Country**

Access to Country, including Sea Country, is necessary for the continuation of other values including caring for Country and the transfer of traditional knowledge. Being on Country can be an important way of expressing or maintaining connection to Country (Australian Indigenous HealthInfoNet n.d.). Access is also a value in its own right, as a continuation of traditional Sea Country access and use.

#### **4.9.4.8 Restriction on Access to Country**

Some areas of Sea Country identified through the literature review include areas that should not be accessed, or are otherwise subject to access restrictions including requiring ceremonies or being accessed only by people of the correct gender. Failure to comply with these obligations may result in risks to cultural or spiritual safety for those individuals or for Traditional Custodians.

#### **4.9.4.9 Kinship Systems and Totemic Species**

Individuals may have kinship to specific species (Smyth, 2008; Juluwarlu, 2004) and/or a responsibility to care for species (Muller, 2008). Kinship arises from totemic associations within First Nations "skin group" systems. It is forbidden for an individual to kill or eat a species who is from the same "skin group" (Juluwarlu, 2004). They may also have certain obligations linked to the discussion

of caring for Country below. It is assumed that marine species may have kinship/totemic relationships to Traditional Custodians, but it is understood that these relationships do not prohibit people outside of that “skin group” from hunting or eating that same species (Juluwarlu, 2004).

#### 4.9.4.10 Resource Collection

A number of marine species are identified through consultation and literature as important resources, particularly as food sources. In addition to their immediate value as sustenance, the gathering and preparation of these resources are informed by cultural knowledge, and an inability to use these resources may result in a loss of ability to transfer that knowledge to future generations.

### 4.9.5 Further Context: Marine Ecosystems and Species

#### 4.9.5.1 Marine Mammals

Whales, and in particular humpback whales, have been identified through consultation with First Nations people as culturally important species, with totemic importance including their populations, biodiversity, and migration patterns. Cultural ceremonies associated with communicating with dolphins have also been raised by MAC through consultation.

Whale symbology expressed through stories, music, and dance can reflect a group’s connections with the sea, as well as marine fauna, which then comprise a group’s cultural values (Ardler, 2023; Bursill et al., 2007; Cressey, 1998). Whales also speak to a broader connection that exists between First Nation people and their surrounding environment. Beyond mythology and symbolism, whales can be connected with various economic and social functions associated with everyday life. Cultural knowledge of whales, whale migration, behaviour and the related marine environment may all be important in ensuring the continuation of these socio-economic functions and other related activities that remain valuable to First Nations people (Fijn, 2021:47).

Details pertaining to whales, Dugongs and dolphins, their distribution, migration patterns and populations are described in Section 4.6.3, with further details in the Master Existing Environment.

#### 4.9.5.2 Marine Reptiles

Turtles and sea snakes have been identified through consultation with First Nations people as culturally important species, with turtles identified as a resource. First Nations people that identify marine reptiles as species of totemic importance or integral to songlines may place high cultural value on their protection. No marine reptiles related songlines have been identified as per **Section 4.9.4.2** that have the potential to interact with the Operational Area or EMBA. Note the only songline related to marine reptiles (turtles) was shared by MAC, and was geographically restricted from Fortescue to Withnell Bay, in Mermaid Sound (MAC, 2021).

Turtle symbology expressed through stories, music, and dance can reflect an individual or group’s connections with the sea, as well as marine fauna, and comprise First Nations’ cultural values (Ardler, 2023; Bursill et al., 2007). Beyond mythology and symbolism, turtles can be connected with various economic and social functions associated with everyday life including hunting and settlement location. Turtles speak to a broader connection that exists between First Nation people and their surrounding environment, including cultural values associated with food security (Delisle et al., 2018:250).

Cultural knowledge of turtles at a population level (turtle migration, behaviour and the related marine environment) may all be important in ensuring the continuation of cultural functions and activities that remain valuable to First Nations people (Fijn, 2021:47; Delisle et al., 2018). Details pertaining to

marine reptiles, their distribution, and populations are described in Section 4.6.2, with further details in the Master Existing Environment.

#### 4.9.5.3 Fish

Fish have been identified through consultation with First Nations people as a culturally important species and a resource.

First Nations may identify cultural values associated with fish species as important to maintaining both tangible (physical cultural sites) and intangible (cultural knowledge) cultural heritage. Tangible cultural heritage associated with fish can include important cultural sites such as midden sites, fish traps and thalu sites. Traditional fish traps require traditional knowledge of the surrounding environment and may involve specialised techniques which have been developed in adaptation to location conditions over time (Fijn, 2021:63).

Intangible cultural heritage associated with fish include songlines, dreaming, art, song and dance. Cultural values relating to fish, and other marine fauna, can collectively capture ‘Sea Country’ which refers to a seascape that Traditional Custodians view, interact with or hold knowledge of. As a result, fish may be culturally value in relationship with broader marine environmental values that are of cultural importance to First Nations people (Smyth, 2007).

Details pertaining to fish, sharks and rays are described in Section 4.6.1, with further details in the Master Existing Environment.

#### 4.9.5.4 Natural Environment Interests

First Nations people have advised through consultation that they have a general interest in environmental management and ecosystem health, including understanding changes in water quality as a result of the PPGAP and potential resultant effects on marine species and benthic communities in the Operational Area and EMBA. This includes marine mammals, marine reptiles, fish, seabirds, plankton and subtidal soft bottom communities, which are described in context of their distribution and populations in the Master Existing Environment.

#### 4.9.6 Historic Sites of Significance

There are no known sites of historic heritage of significance within the Operational Areas. Section 11 of the Master Existing Environment describes cultural heritage sites within the EMBA.

#### 4.9.7 Underwater Heritage

A search of the Australasian Underwater Cultural Heritage Database, which records all known Maritime Cultural Heritage (shipwrecks, aircraft, relics and other underwater cultural heritage) in Australian waters does not contain records of sites within the Operational Areas, however, a number of sites (shipwrecks) exist within the EMBA. Table 4-22 lists sites identified closest to the Operational Area.

**Table 4-22: Underwater heritage sites located within the EMBA and proximity to Operational Areas**

Vessel name	Year wrecked	Wreck location*	Latitude (D.MM °S)	Longitude (D.MM °E)	Distance and Direction from Operational Area (km)
Trial	1622	Trial Rocks	20.29°S	115.38°E	29 km south west from Operational Area A
Tanami	Unknown	Trial Rocks	20.37°S	115.37°E	29 km south west from Operational Area A

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Lady Ann	1982	North West Cape	21.4	114.20	200 km south west from Operational Area A
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#### 4.9.8 World, National and Commonwealth Heritage Listed Places

No listed heritage places overlap the Operational Area. World, National and Commonwealth heritage places within the EMBA are identified in Table 4-23. Section 11.2 of the Master Existing Environment describes the values and sensitivities of these places.

**Table 4-23: World, National and Commonwealth Heritage Listed Places within the EMBA**

Listed Place	Distance and Direction from Closest Operational Area to Listed Place (km)
World Heritage Places (WHP)	
Ningaloo Coast	181 km south west
National Heritage Places (NHP)	
Ningaloo Coast	181 km south west
Commonwealth Heritage Places (CHP)	
Ningaloo Marine Area - Commonwealth waters	198 km south west

## 4.10 Socio-Economic Environment

### 4.10.1 Commercial Fisheries

A number of Commonwealth and State fishery management areas are located within the Operational Areas and EMBA. The Annual Fishery Status Reports published by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) were used to identify if Commonwealth managed fisheries have fished within the Operational Areas and EMBA in the last 5 years. FishCube data were also requested from the WA Department of Primary Industries and Regional Development (DPIRD) for the most recently available 5-year period of fishery catch and effort data (2018-2022) to analyse the potential for interaction with State managed fisheries within the Operational Areas and EMBA (DPIRD, 2022). Data was reviewed from the last 5 years as a subset of past fishing effort. This was deemed an appropriate period to represent potential future fishing effort over the lifecycle of this EP (4 year). In addition, any impacts to fish are expected to be temporary in nature (See Section 6.5 and 6.6) and therefore not extending beyond the life of the EP. This information was used to determine relevant fisheries for consultation who may be impacted by the PGGAP. Table 4-24 provides an assessment of the potential interaction and the Master Existing Environment provide further detail on the fisheries that have been identified through desk-based assessment and consultation (Section 5). Table 4-24 and Figure 4-14 shows fisheries identified as having a potential interaction with the PGGAP.

**Table 4-24: Commonwealth and State Commercial Fisheries overlapping the Operational Areas**

Fishery	Potential for interaction		
	Operational Areas <sup>4</sup>	EMBA <sup>4</sup>	Description
<b>Commonwealth Managed Fisheries</b>			
Southern Bluefin Tuna Fishery	*	*	This fishery management area overlaps with the Operational Areas and EMBA. The Southern Bluefin Tuna Fishery spans the Australian Fishing Zone, however since 1992, the majority of Australian catch has concentrated in south-eastern Australia. (Patterson et al., 2022). Fishing mainly occurs in the Great Australian Bight during summer months, and off the New South Wales coastline during winter months (AFMA, 2020). The fishery has not been active in the Operational Areas or EMBA within the last five years (ABARES, 2022). Woodside considers there to be no potential for interaction with this fishery and the PGGAP given the current distribution of fishing effort
Western Skipjack Tuna Fishery	*	*	This fishery management area overlaps the Operational Areas and EMBA however, this fishery is not currently active and no fishing has occurred since 2009 (Patterson et al., 2022). Therefore, Woodside considers there is no potential for interaction with this fishery at present.
Western Tuna and Billfish Fishery	*	*	Whilst this fishery management area overlaps the Operational Areas and EMBA, fishing effort in the last five years has been concentrated in south-west WA (typically as far north as Carnarvon) and occasionally off South Australia. Woodside considers there to be no

<sup>4</sup> Green highlights in these columns denotes overlap between the Operational Areas with the fishery management area. Ticks or crosses indicate the potential for interaction.

Fishery	Potential for interaction		
	Operational Areas <sup>4</sup>	EMBA <sup>4</sup>	Description
			potential for interaction with this fishery given the current distribution of fishing effort.
North West Slope Trawl Fishery	✖	✓	The North West Slope Trawl Fishery management area overlaps the EMBA. Between one to six vessels have been active in the fishery since 2005. Fishery Status Reports indicate most recent activity inside the EMBA occurred in the 2021-2022 season (Patterson et al., 2022). There has been fishing effort reported within the PAA in the last 5 years. Accordingly, Woodside considers it a possibility that interactions with the fishery may occur in the PAA and the EMBA.
Western Deepwater Trawl Fishery	✖	✓	The Western Deepwater Trawl Fishery management area overlaps the EMBA. Fishery Status Reports indicate most recent activity overlapping the EMBA occurred in the 2021-2022 season (Patterson et al., 2022). There has been no fishing effort reported within the PAA in the last 5 years. Woodside considers it a possibility that interactions with the fishery may occur in the EMBA.
<b>State Managed Fisheries</b>			
Mackerel Managed Fishery	✓	✓	The Mackerel Managed Fishery has been active within the Operational Area in the last five years. Given the Operational Areas overlaps this fisheries management area (specifically, the Pilbara management area – Area 2) and as fishing effort has been reported in the CAES blocks overlapping the Operational Areas in the last five years, it is considered that there is the potential for interaction with this fishery.
Pilbara Line Fishery <i>Part of the Demersal Scalefish Fishery (includes trawl, trap and line fisheries)</i>	✓	✓	The Operational Areas overlaps this fishery management area. The Pilbara Line Fishery licensees are permitted to operate anywhere within Pilbara waters (Newman et al. 2021). Fishing effort has been reported in the CAES blocks overlapping the Operational Area in the last five years. Therefore, it is considered there is potential for interaction with this fishery.
Pilbara Trap Managed Fishery <i>Part of the Demersal Scalefish Fishery (includes trawl, trap and line fisheries)</i>	✓	✓	The Operational Areas overlaps active areas of this fishery management area. Fishing effort is typically focused in waters less than 50 m, however, through consultation fishers have reported setting traps in waters greater than 50 m deep. Additionally, fishing effort has been reported in the CAES blocks overlapping the Operational Areas in the last five years. Therefore, it is considered there is potential for interaction with this fishery.
Pilbara Trawl (Interim) Managed Fishery <i>Part of the Demersal Scalefish Fishery (includes</i>	✓	✓	The Operational Areas overlaps active areas of this fishery management area. Fishing effort for this fishery has been recorded within the CAES blocks overlapping the Operational Areas in the last five years. Therefore, it is considered that there is potential for interaction with this fishery.

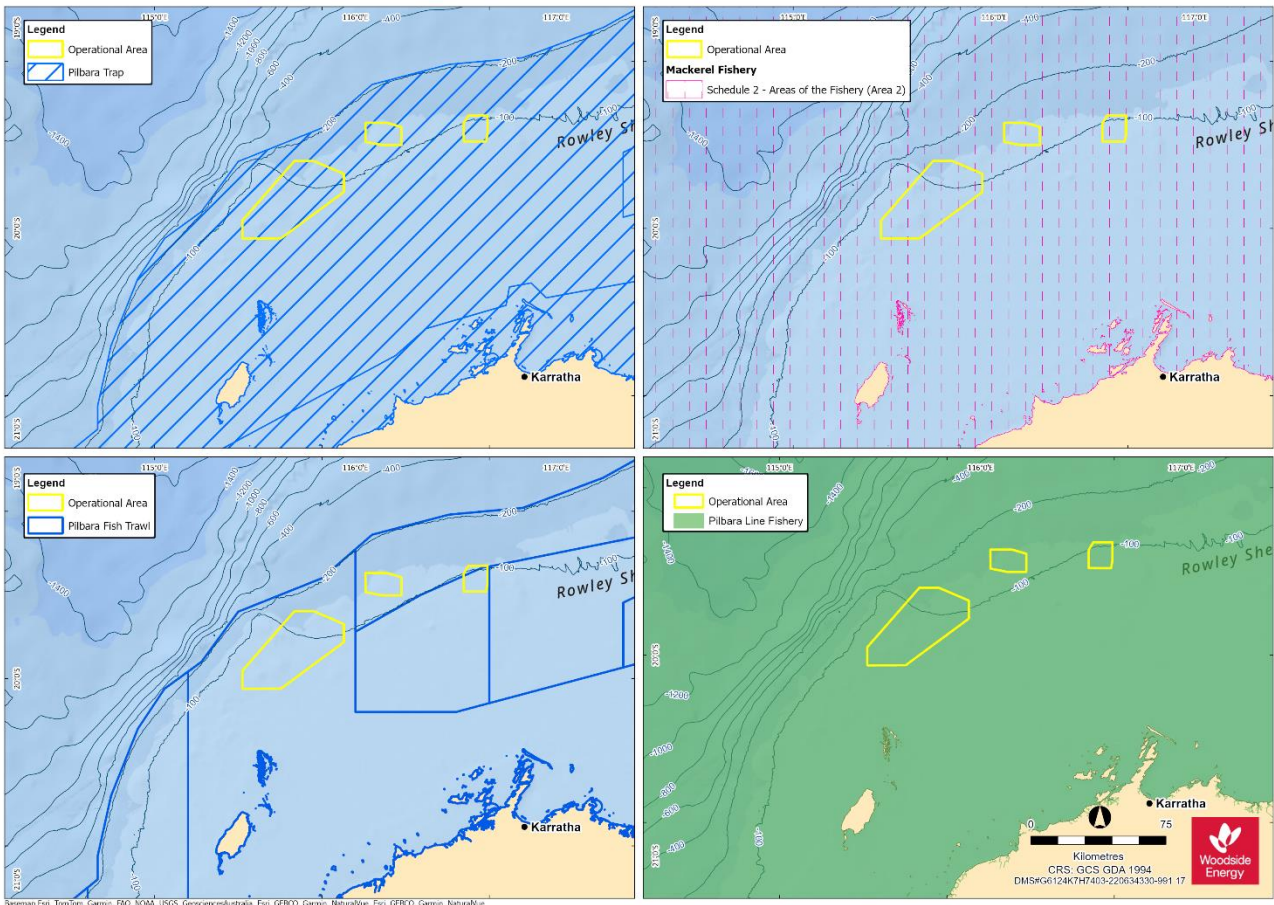
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Fishery	Potential for interaction		
	Operational Areas <sup>4</sup>	EMBA <sup>4</sup>	Description
<i>trawl, trap and line fisheries)</i>			
Onslow Prawn Managed Fishery	*	✓	The Operational Areas overlaps this fishery management area. Fishing effort for this fishery has been recorded within the CAES blocks overlapping the EMBA only in the last five years. Therefore it is considered that there is potential for interaction with this fishery in the EMBA only.
Marine Aquarium Managed Fishery	*	✓	The Marine Aquarium Managed Fishery overlaps the Operational Areas. This fishery is typically active within waters less than 30 m deep. There was no fishing effort recorded in the CAES blocks overlapping the Operational Areas, fishing effort was recorded in CAES blocks overlapping the EMBA in the last five years, interaction with this fishery is anticipated only in the EMBA.
Western Australian Sea Cucumber Fishery	*	✓	The Western Australian Sea Cucumber Fishery management area overlaps the Operational Areas. Fishing effort also typically occurs in water depths of less than 30 m. The fishery is permitted to operate throughout all WA waters, and the target species typically inhabit nearshore waters. Fishing effort for this fishery has been recorded within the CAES blocks overlapping the EMBA only in the last five years. Therefore it is considered that there is potential for interaction with this fishery in the EMBA only.
West Australian Abalone Fishery	✓	✓	Whilst the Operational Areas are overlapped by this fishery management area, no commercial fishing has occurred north of Moore River since 2011-2012 (Strain et al., 2021). As there was no fishing effort reported within the Catch and Effort System (CAES) blocks overlapping the Operational Areas in the last five years, no interaction with this fishery is anticipated.
Specimen Shell Managed Fishery	*	✓	The Operational Areas overlap this fishery management area however shells are typically collected in waters less than 30 m deep. As there was no fishing effort recorded in the CAES blocks overlapping the Operational Areas in the last five years, no interaction with this fishery is anticipated.
South-west Coast Salmon Managed Fishery	*	*	The South West Coast Salmon Managed Fishery management area overlaps the Operational Areas. As no fishing occurs north of the Perth metropolitan area, no interaction with this fishery is anticipated.
West Coast Deep Sea Crustacean Managed Fishery	*	*	The West Coast Deep Sea Crustacean Managed Fishery is permitted to fish in waters deeper than the 150 m isobath overlapping the Operational Areas. As no fishing effort was recorded within the CAES blocks overlapping the Operational Areas and as fishing effort is concentrated in water depths of 500 – 800 m (significantly deeper than the Operational Areas), no interaction with this fishery is anticipated.
Pilbara Crab Managed Fishery	*	*	This fishery area overlaps the Operational Areas, however, fishing is limited to inshore coastal waters (particularly within Nickol Bay) and no fishing effort has been recorded within the CAES blocks overlapping the Operational Areas in the last five years. No interaction with this fishery is therefore anticipated.
Pearl Oyster Managed Fishery	*	*	This fishery management area overlaps the Operational Areas however fishing effort is limited to 35 m depth. No fishing effort has been recorded within the CAES blocks overlapping the Operational

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Fishery	Potential for interaction		
	Operational Areas <sup>4</sup>	EMBA <sup>4</sup>	Description
			Areas in the last five years. No interaction with this fishery is therefore anticipated.
WA North Coast Shark Fishery	✘	✘	This fishery management area overlaps the Operational Areas. However, fishing activity has not been reported by this fishery since the 2008-2009 fishing season (Patterson et al., 2021). Accordingly, Woodside considers there to be no interaction with this fishery.



**Figure 4-14: State commercial fisheries overlapping the Operational Areas with a potential for interaction with the PGGAP**

Additional fisheries overlapping the EMBA include the:

- Commonwealth managed fisheries
  - North-west Slope Trawl Fishery
  - Western Deepwater Trawl Fishery
- State managed fisheries:

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- Exmouth Gulf Prawn Managed Fishery
- Nickol Bay Prawn Managed Fishery
- West Coast Rock Lobster Managed Fishery
- Land Hermit Crab Fishery

#### 4.10.2 Traditional Fisheries

There are no traditional or customary fisheries within the Operational Areas, as these are typically restricted to shallow coastal waters and/or areas with structures such as reefs. However, it is recognised that Barrow Island and the Montebello Islands have a known history of fishing when areas were occupied (as from historical records) (CALM 2005, DEC 2007).

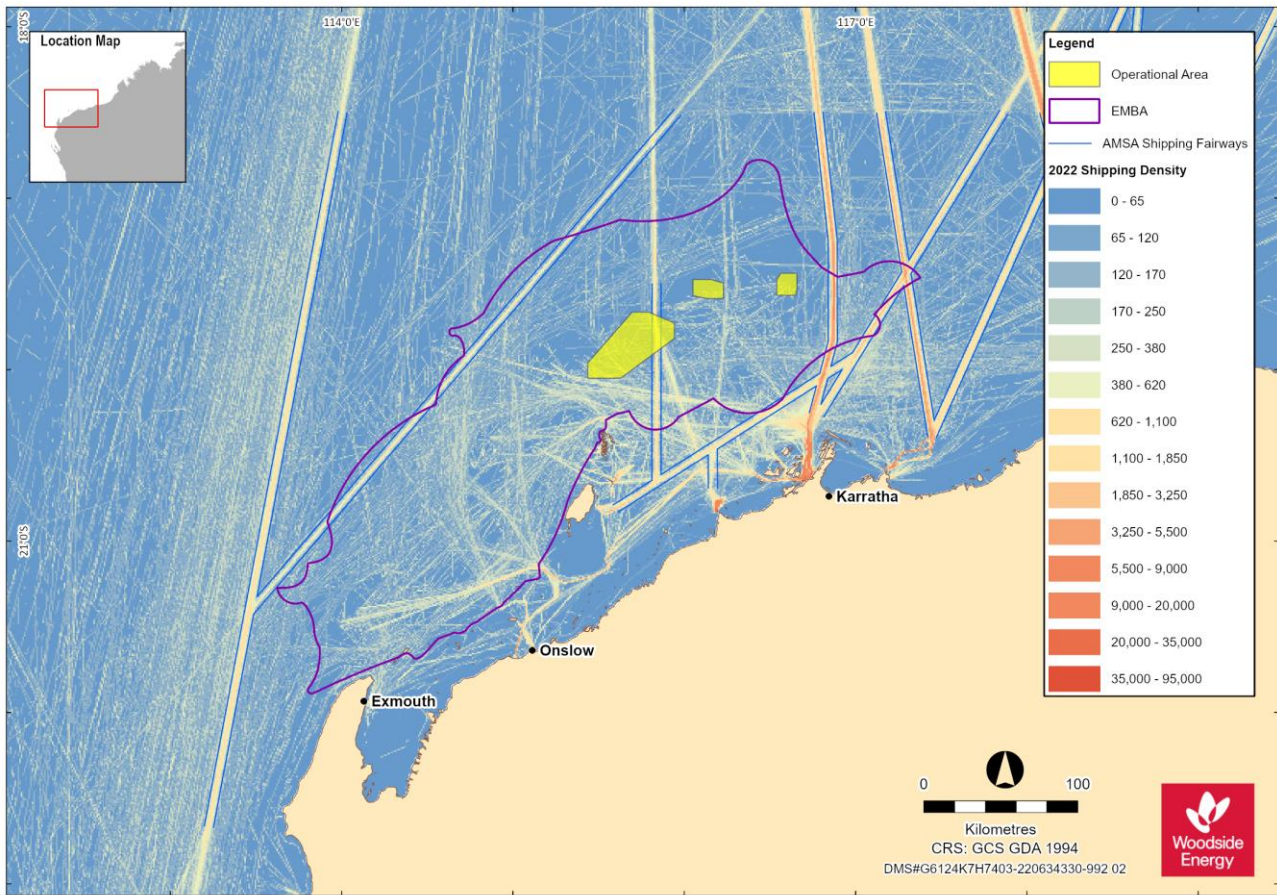
#### 4.10.3 Tourism and Recreation

No tourist activities take place specifically within the Operational Areas. However, growth and the potential for further expansion in tourism and recreational activities is recognised for the Pilbara and Gascoyne regions, with the development of regional centres and a workforce associated with the resources sector (SGS Economics and Planning 2012). Tourism is one of the major industries of the Gascoyne region and contributes significantly to the local economy in terms of both income and employment.

The main marine nature-based tourist activities are concentrated around and within the Ningaloo Coast World Heritage Property (approximately 212 km south-west of Operational Area A). Activities undertaken include recreational fishing, snorkelling and scuba diving and wildlife watching and encounters (including whale sharks, manta rays, humpback whales and turtles) (Schianetz et al. 2009). The Montebello Islands (34 km from Operational Area A) are the closest location for tourism with some charter boat operators taking visitors to these islands (DEC 2007). Recreational fishing in the Pilbara and Gascoyne regions is mainly concentrated around coastal waters and islands and has grown considerably with the expanding regional centres, seasonal tourism and increasing residential and fly in/fly out work force, particularly in the Pilbara region (Fletcher et al. 2017). Some recreational fishing has historically taken place at Rankin Bank (which overlaps Operational Area A) and the Glomar Shoal (approximately 68 km from Operational Area A overlapping with Operational Area C). However, due to the distance from access nodes, such as Dampier and Onslow (approximately 121 km and 186 km from the Operational Areas at the closest point respectively) recreational fishing effort is expected to be restricted to relatively large vessels and hence is considered to be low.

#### 4.10.4 Commercial Shipping

The Australian Maritime Safety Authority (AMSA) has established a network of marine fairways to reduce the risk of vessel collisions with offshore infrastructure. One of these fairways intersects with Operational Area A (Figure 4-15). Vessel tracking data shows shipping activity has potential to occur in all Operational Areas.



**Figure 4-15: Vessel density map for the Operational Areas and EMBA, derived from AMSA satellite tracking system data**

#### 4.10.5 Oil and Gas

Table 4-25 identifies other oil and gas facilities located within 50 km of the Operational Areas, shown in Figure 4-16. Section 11.9 of the Master Existing Environment describes current oil and gas development within the EMBA.

**Table 4-25: Other Oil and Gas Facilities located within 50 km of the Operational Area**

Facility Name and Operator	Distance and Direction from closest Operational Area (km)
Angel Platform	Within Operational Area C
Okha FPSO	Southwest of Operational Area C – 10 km East of Operational Area B – 22 km
North Rankin Complex	Within Operational Area B
Goodwyn Platform	Northeast of Operational Area A – ~18 km Southwest of Operational Area B – ~7 km
Pluto Platform	West of Operational Area A – ~6 km
Various production gas flowlines	Within or in close proximity to Operational Areas
Wheatstone Platform	West of Operational Area A - ~6 km
Modec Venture 11 FPSO	North of Operational Area C - ~17 km

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Facility Name and Operator	Distance and Direction from closest Operational Area (km)
Reindeer Platform	East of Operational Area A - ~49 km
John Brookes Platform	South of Operational Area A - ~55 km
Wonnich Platform	Southeast of Operational Area A - ~50 km
Campbell Platform	Southeast of Operational Area A - ~40 km

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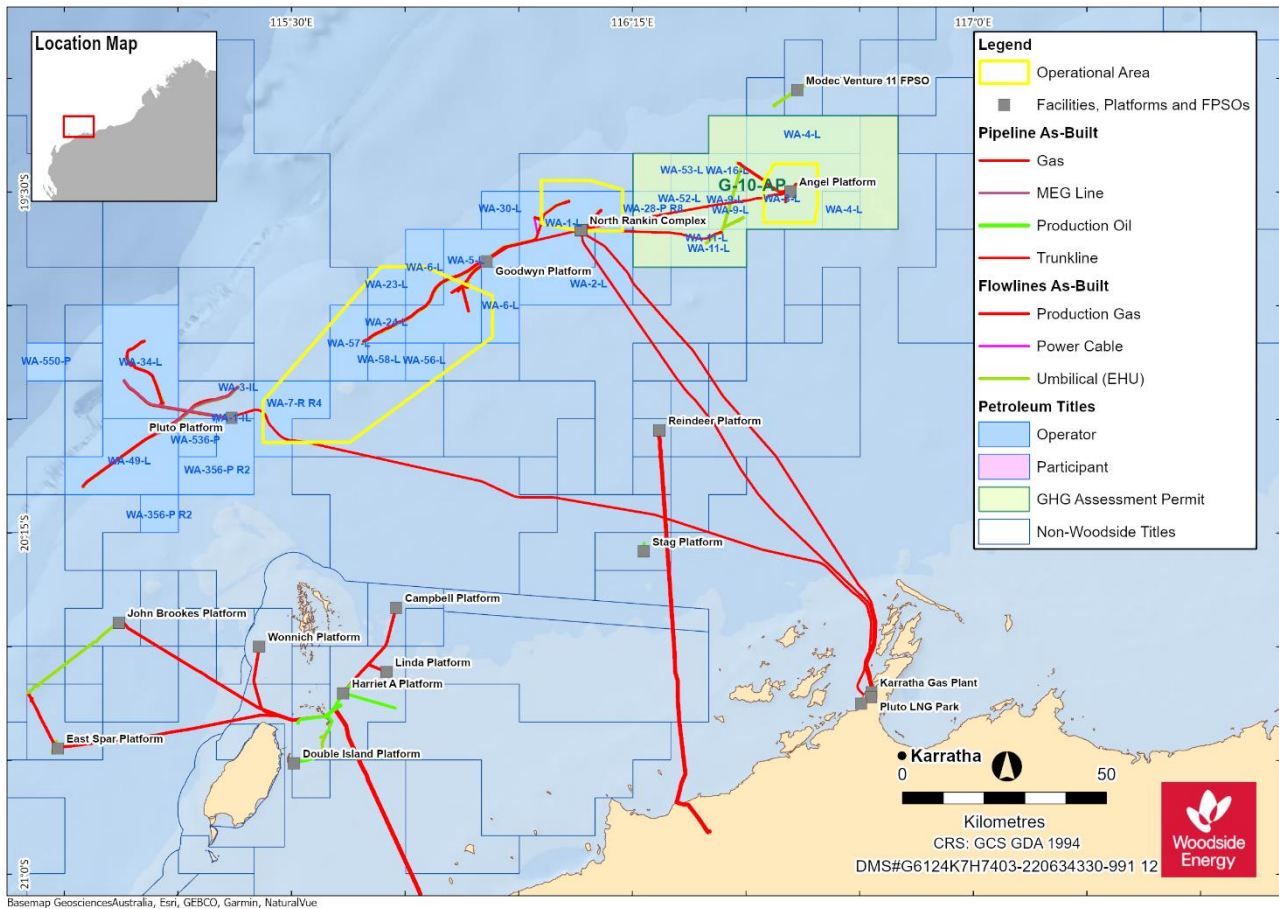


Figure 4-16: Oil and gas Infrastructure in proximity to the Operational Area

#### 4.10.6 Defence

No Defence areas overlap the Operational Areas. Defence areas overlapping the EMBA are presented in Figure 4-17.

There are designated defence practice areas in the offshore marine waters off Ningaloo and the North West Cape in the EMBA. The closest site where unexploded ordinance is known to occur is 33 km south of Operational Area A in depths of about 50 m.

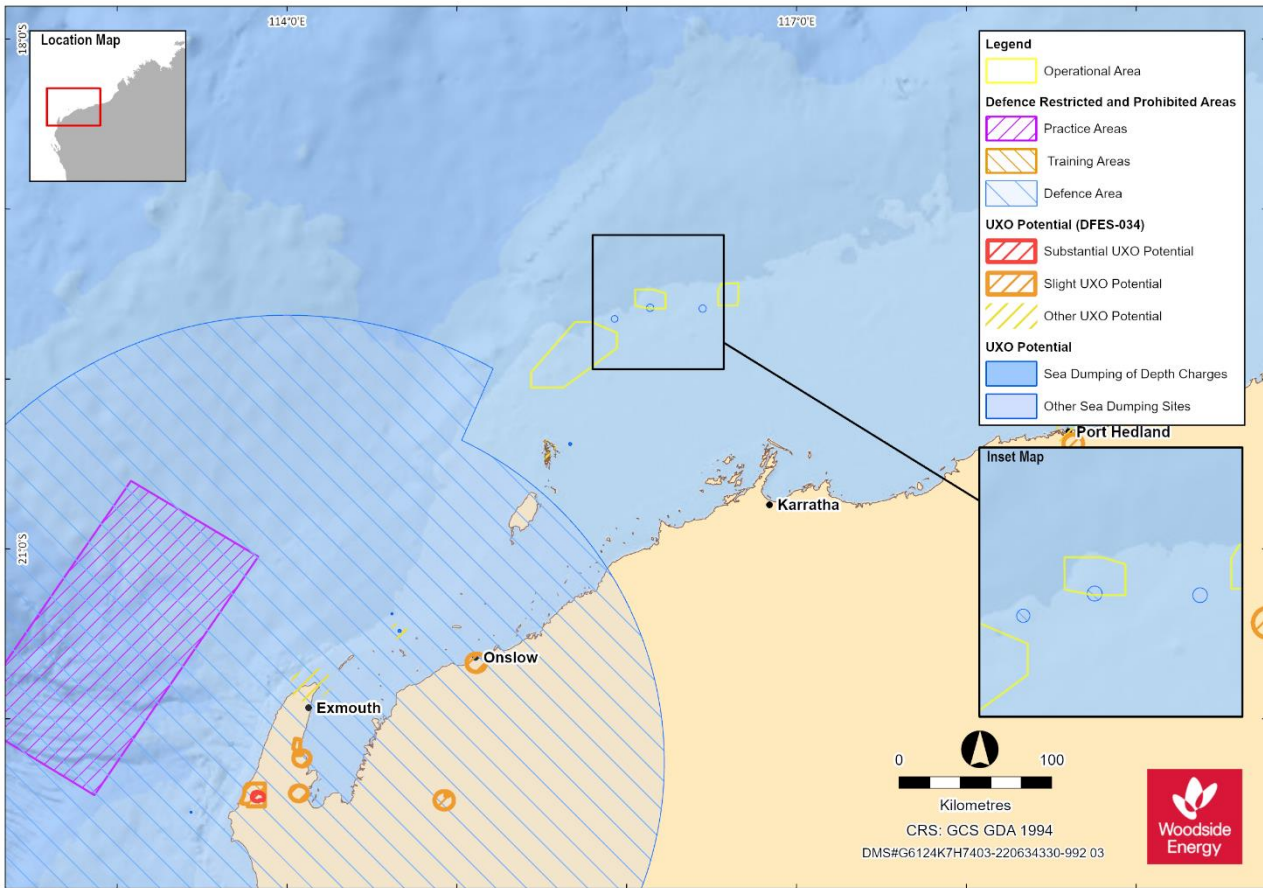


Figure 4-17: Defence areas within the Operational Areas and EMBA

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## 5. CONSULTATION

### 5.1 Summary

Woodside consults relevant persons in the course of preparing an EP in accordance with regulation 25 of the Environment Regulations. Consultation is designed to identify relevant persons and provide them with sufficient information and a reasonable period to allow them to make an informed assessment of the possible consequences of the proposed activity on their functions, interests or activities and, to enable titleholders to consider and adopt appropriate measures in response to objections or claims received from relevant persons. Consistent with regulation 4 of the Environment Regulations, consultation also supports the objective to ensure that activity is carried out in a manner by which the environmental impacts and risks of the activity will be reduced to ALARP and will be of an acceptable level.

Woodside acknowledges that a titleholder's approach to consultation is to be informed by both the Environment Regulations and the findings of relevant Courts, including the Full Federal Court in the *Santos NA Barossa Pty Ltd v Tipakalippa* [2022] FCAFC 193 (Tipakalippa Appeal) (see **Section 5.2** and **5.5.1**) delivered on 2 December 2022.

For this PGGAP, Woodside has considered both the Operational Area and the broader EMBA in undertaking consultation (see further discussion in **Section 5.2**). The broadest extent of the EMBA has been determined by reference to the highly unlikely event of a hydrocarbon release resulting from the PGGAP (see **Section 4**).

Woodside's consultation methodology is divided into two parts:

- The first section (**Section 5.2 to 5.5**) provides an overview of Woodside's consultation methodology for its EPs, including how we apply regulation 25(1) of the Environment Regulations to identify relevant persons.
- The second section (**Section 5.6 to Section 5.7**) details Woodside's approach to accepting feedback and assessment of the merit of each objection or claim, and engaging in ongoing consultation for this EP.

Woodside's consultation record is at **Appendix F** and includes:

- Assessment and identification of relevant persons.
- Consultation information provided to relevant persons, feedback received and Woodside's assessment of the merits of objections or claims.
- Engagement with persons or organisations that Woodside chose to contact who are not relevant persons for the purposes of regulation 25(1) of the Environment Regulations (see **Section 5.3.4**).
- Opportunities provided to persons or organisations to be aware of Woodside's proposed EP and participate in consultation, including individual Traditional Custodians.



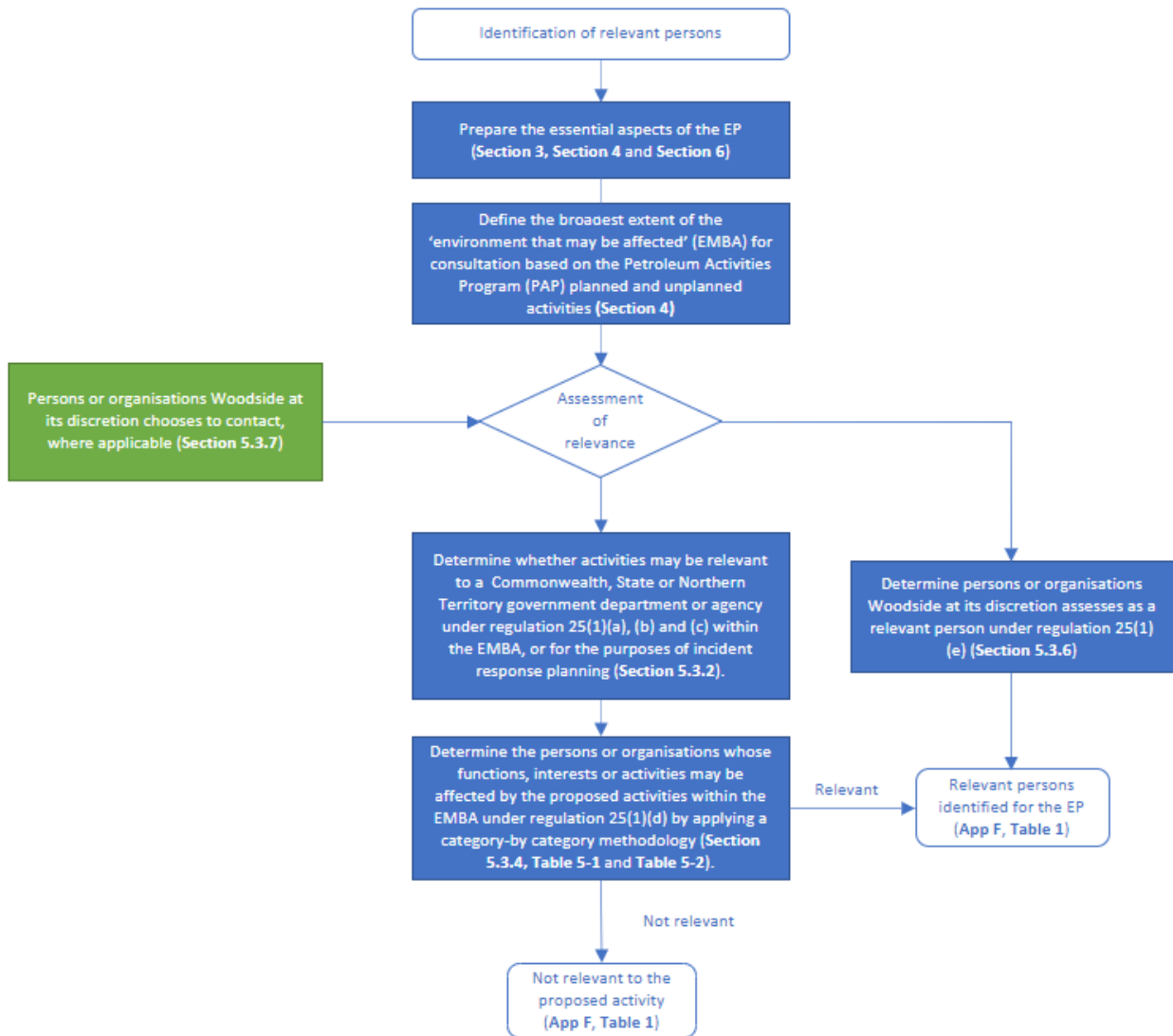


Figure 5-1: Overview of Woodside’s methodology to identify relevant persons

## 5.2 Consultation – General Context

Woodside has a portfolio of quality oil and gas assets and more than 30 years of operating experience. We have a strong history of working with local communities, the relevant regulators and a broad range of persons and organisations to understand the potential risks and impacts from our proposed activities and to develop appropriate measures to manage them.

The length of time that we have operated in Commonwealth and State waters, and the history of continued engagement with a wide range of persons and organisations enables Woodside to develop an extensive consultation list to inform its consultation process. This consultation list is not

used as a definitive list of persons to consult, but rather, assists Woodside as an input to its understanding of relevant persons with whom to consult on a proposed petroleum and greenhouse gas activity. The information in the consultation list has been captured from years of experience, it contains insights relating to the type of information particular persons or organisations want to receive during consultation, the appropriate method of consultation for relevant persons and includes appropriate contact details, which are reviewed and updated periodically.

Woodside acknowledges NOPSEMA's Guideline on Consultation in the course of preparing an environment plan (12 May 2023) as well as judicial guidance in the Tipakalippa Appeal on the intent of consultation as follows:

- At paragraph 54 of the appeal decision: ... *provide a basis for NOPSEMA's considerations of the measures, if any, that a titleholder proposes to take or has taken to lessen or avoid the deleterious effect of its proposed activity on the environment, as expansively defined.*
- At paragraph 89 of the appeal decision: ... *its purpose is to ensure that the titleholder has ascertained, understood and addressed all the environmental impacts and risks that might arise from its proposed activity. Consultation facilitates this outcome because it gives the titleholder an opportunity to receive information that it might not otherwise have received from others affected by its proposed activity. Consultation enables the titleholder to better understand how others with an objective stake in the environment in which it proposes to pursue the activity perceive those environmental impacts and risks. As the Regulations expressly contemplate, it enables the titleholder to refine or change the measures it proposes to address those impacts and risks by taking into account the information acquired through the consultations. Objectively, the scheme intends that this is likely to improve the minimisation of environmental impacts and risks from the activity.*

The Tipakalippa Appeal has also been further considered in the context of specific methods for consultation with First Nations relevant persons (**Section 5.5.1**).

In order to undertake consultation, Woodside has developed a methodology for identifying relevant persons, in accordance with regulation 25(1) of the Environment Regulations (**Section 5.3**). This methodology is consistent with NOPSEMA's guideline and demonstrates that, in order to meet the requirements of regulation 34 (criteria for EP acceptance) when preparing the EP, Woodside understands:

- our planned activities in the Operational Area, being the area in which our planned activities are proposed to occur (see **Section 3.4**); and
- the geographical extent to which the environment may be affected (EMBA) by risks and impacts from our activities (unplanned) (identified in **Section 4.1** and assessed in **Section 6.6**).

Woodside has undertaken consultation in the course of preparing this EP in compliance with regulation 25 of the Environment Regulations, which requires a titleholder to:

- consult with each of the following (a **relevant person**) in the course of preparing an environment plan:
  - each Commonwealth State or Northern Territory agency or authority to which the activities to be carried out under the environment plan, , may be relevant;
  - if the plan relates to activities in the offshore area of a State – the Department of the responsible State Minister;

- if the plan relates to activities in the Principal Northern Territory offshore area – the Department of the responsible Northern Territory Minister;
- a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the EP, or the revision of the EP; and
- any other person or organisation that the titleholder considers relevant (regulation 25(1)).
- give each relevant person sufficient information to allow the relevant person to make an informed assessment of the possible consequences of the activity on their functions, interests or activities (regulation 25(2));
- allow a relevant person a reasonable period for the consultation (regulation 25(3)); and
- tell each relevant person that the titleholder consults with, that the relevant person may request that particular information it provides in the consultation not be published and any information subject to such a request is not to be published (regulation 25(4)).

Further, Woodside seeks to carry out consultation in a manner that:

- is consistent with the principles of ecologically sustainable development (ESD) set out in section 3A of the EPBC Act – see **Section 2**;
- is intended to reduce the environmental impacts and risks from the activity to ALARP; (regulation 4 of the Environmental Regulations)
- seeks to ensure that the environmental impacts and risks of the activity will be of an acceptable level; (regulation 4 of the Environmental Regulations)
- is intended to minimise harm to the relevant person and the environment from the proposed petroleum and greenhouse gas activities and to enable Woodside to consider measures that may be taken to mitigate the potential adverse environmental impacts from the petroleum activity;
- is collaborative; Woodside respects that for a relevant person, consultation is voluntary. Where the relevant person seeks to engage, Woodside engages with the relevant person with the aim of seeking genuine and meaningful two-way dialogue; and
- provides opportunities for relevant persons to provide feedback throughout the life of the EP through its ongoing consultation process (refer to **Section 5.7** and **Section 7.8.2.1**).

An overview of Woodside’s consultation approach is outlined at **Figure 5-2**.

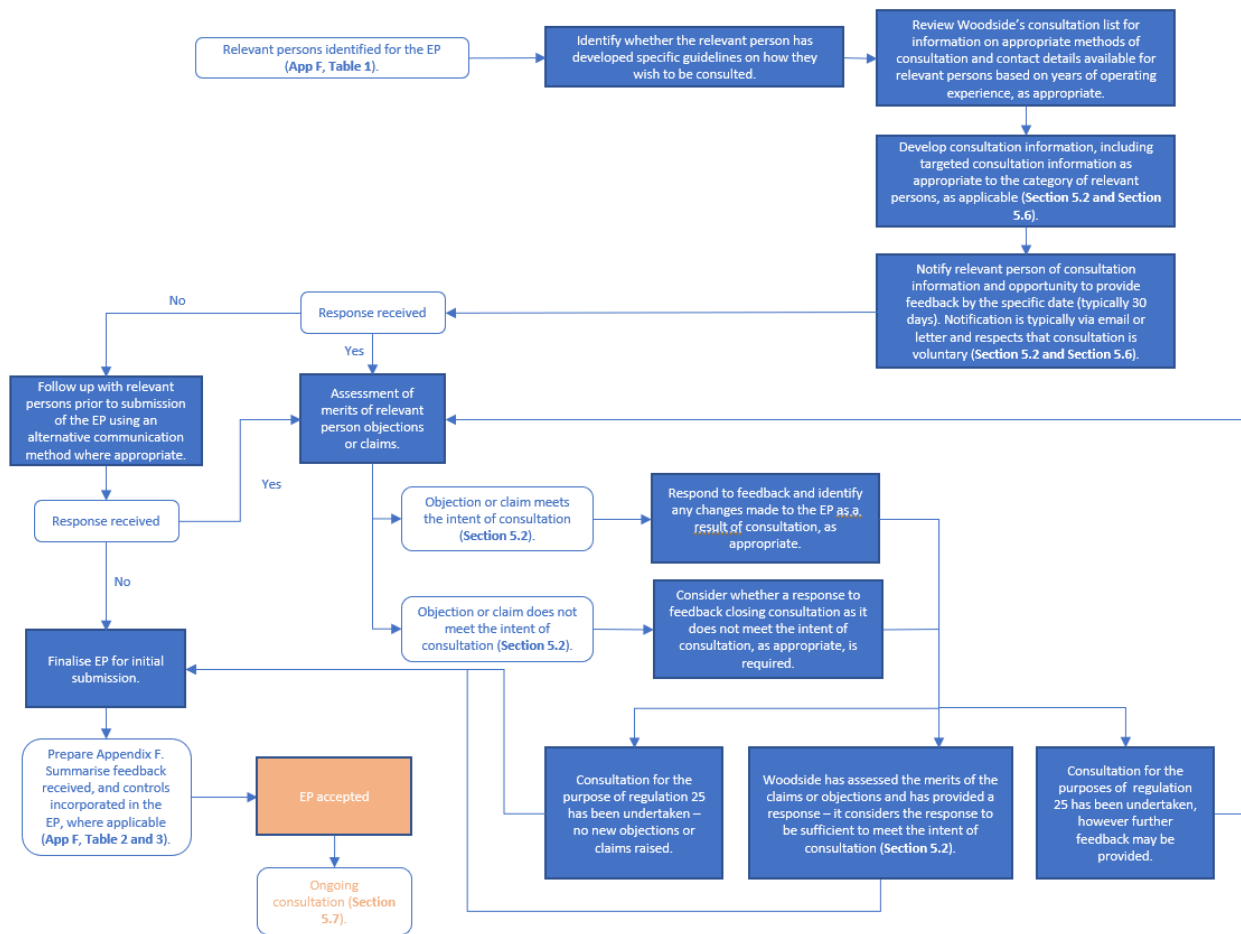


Figure 5-2: Overview of Woodside's consultation approach.

The methodology for consultation for this activity has been informed by various guidelines and relevant information for consultation on planned activities, including:

Federal Court:

- [Santos NA Barossa Pty Ltd v Tipakalippa \[2022\] FCAFC 193](#)
- [Munkara v Santos NA Barossa Pty Ltd \(No 3\) \[2024\] FCA9](#)

NOPSEMA:

- [GL2086 – Consultation in the course of preparing an environment plan – May 2023](#)
- [GN1847 – Responding to public comment on environment plans – January 2024](#)
- [GN1344 - Environment plan content requirements - September 2020](#)
- [GL1721 – Environment Plan decision making – January 2024](#)
- [GN1488 - Oil pollution risk management - July 2021](#)

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- [GN1785 – Petroleum activities and Australian Marine Parks – January 2024](#)
- [GL 1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2024](#)
- [PL9028 Managing gender-restricted information – December 2023](#)
- [Consultation on offshore petroleum environment plans – Information for the community](#)

Department of Climate Change, Energy, the Environment and Water:

- [Sea Countries of the North-West: Literature review on Indigenous connection to and uses of the North West Marine Region](#)

Australian Fisheries Management Authority:

- [Petroleum industry consultation with the commercial fishing industry](#)
- Department of Agriculture, Fisheries and Forestry:
- [Fisheries and the Environment – Offshore Petroleum and Greenhouse Gas Act 2006](#)
- [Offshore Installations Biosecurity Guide](#)

WA Department of Primary Industries and Regional Development:

- [Guidance statement for oil and gas industry consultation with the Department of Fisheries](#)

WA Department of Transport:

- [Offshore Petroleum Industry Guidance Note](#)

Good practice consultation:

- [IAP2 Public Participation Spectrum](#)
- [Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Act 1999](#)

## 5.3 Identification of Relevant Persons for Consultation

### 5.3.1 Regulations 25(1)(a), (b) and (c)

The relevant inquiry for determining relevant persons within the description of regulations 25(1)(a) and (b) is whether the activities to be carried out under the EP may be relevant to one of the government departments or agencies in those regulations. The government departments and agencies relevant to the EP are listed in Appendix F, Table 1. In accordance with regulation 25(1)(b), Woodside consults with the department of the relevant State Minister.

### 5.3.2 Identification of relevant persons under regulation 25(1)(a), (b) and (c)

Woodside's methodology for identifying relevant persons under regulations 25(1)(a), (b) and (c) is as follows:

- Woodside considers the defined responsibilities of each of the departments and agencies to which the activities in the EMBA to be carried out under the EP may be relevant. This list of relevant department and agencies is formulated by reference to the responsibilities of the government departments as set out on their websites, in NOPSEMA's *GL 1887 – Consultation with Commonwealth agencies with responsibilities in the marine area*

guideline (January 2023), which describes where the Department is a relevant agency under the Environment Regulations, as well as experience and knowledge that Woodside has gained from years of operating in relation to the departments and agencies which Woodside has historically consulted over the years. This list is revised from time to time, for example, for the purposes of accommodating government restructures, renaming of departments, shifting portfolios and/or to account for new agencies that might arise.

- Woodside has categorised government department or agency groups as follows:

<b>Government departments / agencies – marine</b>	Agencies with legislated responsibilities for use of the marine environment.
<b>Government departments / agencies – environment</b>	Agencies with legislated responsibilities for the protection of the marine environment.
<b>Government departments / agencies – industry</b>	The legislated Department of the responsible Commonwealth, State or Northern Territory Minister for Industry.

- Woodside considers each of the responsibilities of the departments and agencies and determines whether those responsibilities overlap with potential risks and impacts specific to the proposed activity in the EMBA. The assessment is both activity and location based.
- Woodside acknowledges the roles and responsibilities of government departments and agencies acting on behalf of various industry participants. For example, AMSA – Marine Safety is responsible for the safety of vessels and the seafarers who are operating in the domestic commercial shipping industry and AHO is responsible for maritime safety and Notices to Mariners. To undertake the PGGAP in a manner that prevents a substantially adverse effect on the potential displacement of marine users, Woodside therefore consults AMSA – Marine Safety and AHO on its proposed activities. Woodside considers each of the responsibilities of the departments and agencies and determines those that would either be involved in the incident response itself or in relation to the regulatory or decision-making capacity with respect to planning for the unlikely event of a worst-case hydrocarbon release incident response specific to the PGGAP. Feedback received, if any, is assessed in accordance with the intended outcome of consultation.
- The list of those government departments and agencies assessed as relevant is set out in **Appendix F, Table 1**.
- Feedback received, if any, is assessed in accordance with the intended outcome of consultation and summarised at **Appendix F, Table 2** and **Table 3** as appropriate to the relevance assessment.

Woodside does not consult with departments or agencies with interests that do not overlap with risks and impacts specific to the proposed activity in the EMBA or would not be involved in incident response planning.

### 5.3.3 Regulation 25(1)(d)

In order to identify a relevant person for the purposes of regulation 25(1)(d), the meaning of “functions, interests or activities” needs to be understood. In regulation 25(1)(d), the phrase “functions, interests or activities” should be construed broadly and consistently with the objects of the Environment Regulations (regulation 3) and the objects of the EPBC Act (section 3A).

In developing its methodology for consultation, Woodside acknowledges that the guidance on the definition of functions, interests and activities is as follows in accordance with NOPSEMA’s GL2086 – Consultation in the course of preparing an environment plan guideline (May 2023):

<b>Functions</b>	Refers to a power or duty to do something.
<b>Interests</b>	Conforms to the accepted concept of ‘interest’ in other areas of public administrative law and includes any interest possessed by an individual whether or not the interest amounts to a legal right or is a proprietary or financial interest or relates to reputation.
<b>Activities</b>	Broader than the definition of ‘activity’ in regulation 5 of the Environment Regulations and is likely be directed to what the relevant person is already doing.

Woodside’s methodology for determining ‘relevant persons’ for the purpose of regulation 25(1)(d) of the Environment Regulations includes consideration of:

- whether a person or organisation has functions interests or activities that overlap with the Operational Area and EMBA
- whether a person or organisation’s functions, interests or activities may be affected by Woodside's proposed planned or unplanned activities.

### 5.3.4 Identification of relevant persons under regulation 25(1)(d))

Relevant persons under regulation 25(1)(d) are defined as a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the EP. In identifying relevant persons, Woodside considers:

- the planned activities to be carried out under this EP (described in **Section 3**); and
- the EMBA by unplanned activities (identified in **Section 4** and assessed in **Section 6**).

To identify relevant persons who fall within regulation 25(1)(d), Woodside adopts the following methodology, and then undertakes consultation with relevant persons.

- As a general proposition, Woodside assesses whether a person or organisation is a relevant person having regard to:
  - whether a person or organisation has functions interests or activities that overlap with the PAA and EMBA; and
  - whether a person or organisation's functions, interests or activities may be affected by Woodside's proposed planned or unplanned activities to be carried out under the EP.
- This assessment will include applying judgement, knowledge and current literature.
- Further, to assist in identifying the full range of relevant persons, Woodside considers the impacts and risks associated with its proposed activities and considers the broad categories of relevant persons who may be affected by the activities proposed to be carried out under the EP. The broad categories are identified in **Table 5-1** below and identification methodology applied as set out in **Appendix F**.
- The list of those persons or organisations assessed as relevant and persons or organisations Woodside separately chose to contact is set out in **Appendix F, Table 1**.

- Feedback received, if any, is assessed in accordance with the intended outcome of consultation and applying the categories of relevant persons methodology outlined in **Table 5-2**, as appropriate.
- Feedback from relevant persons is summarised at **Appendix F, Table 2**. Feedback from persons assessed as not relevant but whom Woodside chose to contact or self-identified and Woodside assessed as not relevant are summarised at **Appendix F, Table 3**.

**Table 5-1: Categories of relevant persons**

Category	Explanation
Commercial fisheries (Commonwealth and State) and peak representative bodies	Commonwealth or State Commercial Fishery with a fishery management plan recognised under the Commonwealth Fisheries Management Act 1991 (Cth) and Western Australian Fish Resources Management Act 1994 (WA), which may be amended from time to time.  Commonwealth peak fishery representative bodies are identified by AFMA. WAFIC is the peak representative body for state fishers in Western Australia.
Recreational marine users and peak representative bodies	Charter boat, tourism and dive operators identified by DPIRD specific to the location of the proposed activity.  Representative bodies are the recognised peak organisation(s) for recreational marine users.
Titleholders and Operators	Registered holder of an offshore petroleum title or GHG title governed by the <i>OPGGGS Act</i> and associated regulations.
Peak industry representative bodies	Recognised peak organisation(s) for the oil and gas sector.
Traditional Custodians (individuals and/or groups/entity)	Traditional Custodians are First Nations Australians who hold cultural rights and interests, or have cultural functions or perform cultural activities over particular lands and waters.  Where a First Nations person, group or entity self-identifies and/or asserts cultural rights, functions, interests, or activities they will be included in the definition of Traditional Custodian for the purpose of this EP.
Nominated Representative Corporations	Nominated representative corporations are Traditional Custodians' nominated representative institutions such as Prescribed Body Corporates (PBC).  PBCs are established under the Native Title Act 1993 by Traditional Custodians to represent their entire Traditional Custodian group (defined broadly by reference to descents from an ancestor set who were known to be the Traditional Custodians at the time of European colonisation) and their interests including, among other things, management and protection of cultural values.
Native Title Representative Bodies	A Representative Aboriginal/Torres Strait Islander Bodies (RATSIB) is a regional organisation appointed under the Native Title Act 1993 (NTA) with prescribed functions, set out in Part 11 of the Native Title Act 1993, which relate to: facilitation and assistance; certification; dispute resolution; notifications; agreement making. They are also known, and referred to here, as Native Title Representative Bodies.
Historical heritage groups or organisations	Legislated or government enlisted groups or organisations responsible for the management of marine heritage.
Local government and recognised local community reference/liaison groups or organisations	Local government governed by the <i>Local Government Act 1995</i> (WA) which is responsible for representing the local community. Recognised local community reference/liaison group or organisation in relation to oil and gas matters.

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Category	Explanation
Other non-government groups or organisations	Non-government organisation with public website material targeting the proposed activity.
Research institutes and local conservation groups or organisations	Research institutes are government or private institutions that conduct marine or terrestrial research. Local conservation groups are local non-government organisation that regularly conduct conservation activities focused on the local environment or wildlife.

**Table 5-2: Methodology for identifying relevant persons within the EMBA undertaken under subcategory 25(1)(d) – by category**

Category	Relevant person identification methodology
Commercial fisheries (Commonwealth and State) and peak representative bodies	<p>Woodside assesses relevance for commercial fisheries (Commonwealth and State) and their representative bodies using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>Defining the parameters having regard to timing, location and duration of the proposed activity.</li> <li>Confirming whether the EMBA overlaps with the fisheries management area (i.e. the spatial area the fishery is legally permitted to fish in) (see <b>Section 4.9</b>).</li> <li>Woodside acknowledges WAFIC’s consultation guidance<sup>5</sup> (accessed on 2 February 2023), that Titleholders develop separate consultation strategies for significant unplanned events (for example oil spill) where Titleholders can demonstrate the likelihood of such events occurring is extremely low. WAFIC’s guidance is that consultation on unplanned events resulting in an emergency scenario should only be undertaken if an incident occurs (see <b>Appendix H</b>).</li> <li>For Commonwealth and State commercial fisheries, Woodside assesses the potential spatial and temporal extent for interaction with the fishery by reviewing AFMA ABARES and DPIRD Fishcube data within the Operational Area and EMBA (see <b>Section 4.9.2</b>).</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>State commercial fisheries that have been assessed as having a potential for interaction within the Operational Area or EMBA (see <b>Section 4.9.2</b>) are assessed as relevant to the proposed activity. Woodside acknowledges WAFIC’s consultation guidance<sup>1</sup> (see above) and applies this by: <ul style="list-style-type: none"> <li>directly consulting fishery licence holders that are assessed as having a potential for interaction in the Operational Area; and</li> <li>consulting fisheries that are assessed as having a potential for interaction in the EMBA via WAFIC.</li> </ul> </li> <li>Commonwealth commercial fisheries that have been assessed as having a potential for interaction within the Operational Area or EMBA (see <b>Section 4.9.2</b>) are assessed as relevant to the proposed activity.</li> <li>If Woodside has identified that a Commonwealth or State fishery is a relevant person, then Woodside also consults the fisheries relevant representative body. For example, WAFIC represents the interests of State fisheries in Western Australia. If a State fishery is identified as relevant, Woodside would also identify WAFIC as relevant. Recognised Commonwealth fishery representative bodies are identified by</li> </ul>

<sup>5</sup> [Consultation Approach for Unplanned Events - WAFIC](#)

Category	Relevant person identification methodology
	AFMA via its website. WAFIC is the only recognised State fishery representative body.
Recreational marine users and peak representative bodies	<p>Woodside assesses relevance for recreational marine users and peak representative bodies using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>• From Woodside knowledge and operating experience, knowledge of recreational marine users in the area. This assessment is both activity and location based.</li> <li>• Defining the parameters having regard to timing, location and duration of the proposed activity.</li> <li>• Assessing the potential spatial and temporal extent for interaction with recreational marine users by reviewing DPIRD Fishcube data to assess whether there has been activity within the EMBA in the past 5 years.</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>• Recreational marine users that have been active in the past 5 years within the EMBA are assessed as relevant to the proposed activity. Woodside is provided with the contact details of charter, boat tourism and dive operators specific to the region of the EMBA by DPIRD to consult with the relevant persons.</li> <li>• If Woodside has identified recreational marine users as relevant persons, then Woodside also consults identified peak recreational marine user representative bodies. For example, Recfishwest represents the interests of recreational fishers. These representative bodies are identified via Woodside’s existing consultation list, which is updated as appropriate via advice from known groups and DPIRD.</li> </ul>
Titleholders and Operators	<p>Woodside assesses relevance for other Titleholders and operators using the following next steps in its methodology:</p> <ol style="list-style-type: none"> <li>1) Using WA Petroleum Titles (DEMIRS-011) to determine overlap with other Titleholders or Operators permit areas within the EMBA.</li> <li>2) From Woodside knowledge and operating experience, knowledge of other operators in the area.</li> <li>3) Woodside produces a map showing the outcome of this assessment.</li> </ol> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>• Titleholders and Operators whose permit areas are identified as having an overlap within the EMBA are assessed as relevant.</li> </ul>
Peak industry representative bodies	<p>Woodside assesses relevance for peak industry representative bodies using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>• Review of peak industry representative bodies responsibilities that Woodside actively participates in, with consideration of overlap between industry focus area and Woodside’s proposed activities within the EMBA.</li> <li>• Review of Woodside’s existing consultation list.</li> <li>• Website search to identify whether any additional peak industry representative bodies have been created whose responsibilities may overlap with Woodside’s proposed activities within the EMBA.</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>• Peak industry representative bodies whose responsibilities are identified as having an overlap with Woodside’s proposed activities within the EMBA are assessed as relevant.</li> </ul>
Traditional Custodians (individuals and/or groups/entity) and Nominated	<p>Consistent with its understanding of the matters discussed in <b>Section 4.9</b>, to identify Traditional Custodian groups or individuals, Woodside:</p> <ul style="list-style-type: none"> <li>• Uses existing systems of recognition to identify First Nations groups who overlap or are coastally adjacent to the EMBA (for example, recognition provided under</li> </ul>

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Category	Relevant person identification methodology
<p>Representative Corporations</p>	<p>native title or cultural heritage legislation, or marine park management plans, or identification by other First Nations groups or entities);</p> <ul style="list-style-type: none"> <li>• Notifies and invites consultation with First Nations people through their nominated representative corporation (for example PBCs); or, in the case of native title, and where appropriate, the Native Title Representative Body</li> <li>• Requests the nominated representative body to forward the notifications and invitations to consult to their members (members are individual communal rights holders);</li> <li>• Requests advice as to other First Nations groups or individuals that should be consulted;</li> <li>• Advertises widely so as to invite self-identification and consultation by First Nations groups and/or individuals.</li> </ul> <p>Further detail to Woodside's methodology is as follows.</p> <p>Woodside uses the databases of the National Native Title Tribunal:</p> <ul style="list-style-type: none"> <li>• to understand whether there are any Native Title Claims (historical or current) or determinations overlapping or coastally adjacent to the EMBA;</li> <li>• to understand whether there are any relevant Indigenous Land Use Agreements (ILUA), registered with the National Native Title Tribunal that overlap or are adjacent to the EMBA that may identify Traditional Custodians or representative bodies to contact regarding potential cultural values.</li> </ul> <p>Where there is a positive determination of native title, contacting the PBC or, where their representative is a Native Title Representative Body contacting the Native Title Representative Body.</p> <p>Where appropriate, contacting the relevant Native Title Representative Body to request a list of any First Nations groups asserting Traditional Custodianship over an area of coastline adjacent to the EMBA.</p> <p>Review of Commonwealth and State Marine Park Management Plans that overlap the EMBA which may identify Traditional Custodians or representative bodies to contact regarding potential cultural values.</p> <p>First Nations groups or individuals identified by a Traditional Custodian, nominated representative corporation, Native Title Representative Body.</p> <p>Request to the PBC to distribute Woodside consultation materials through its membership. Woodside is unable to contact this membership through any other means.</p> <p>Woodside has a number of public notification and information sharing processes by which individual Traditional Custodians can become aware of the proposed activity, its risks and impacts, and self-identify.</p> <p>Individuals that consider their functions, interests or activities may be affected by a proposed activity are provided an opportunity to self-identify for each EP. Woodside does not presume that self-identification for an activity, covered by another EP, automatically means that an individual/s functions, interest and activities may be affected by other activities where EMBA's overlap. This decision is for the individual to make. The public notification, information sharing, and consultation processes Woodside puts in place enables Traditional Custodians to become aware of proposed activities, assess any risks and impacts to their values, and enable individuals to self-identify.</p> <p>Assessment of relevance:</p> <p>Traditional Custodian groups, entities or individuals and Nominated Representative Corporations who are identified through the above methodology and overlap or are coastally adjacent to the EMBA are assessed as relevant.</p>
<p>Native Title Representative Bodies</p>	<p>Woodside assesses relevance for Native Title Representative Bodies using the following steps in its methodology:</p> <ul style="list-style-type: none"> <li>• A Representative Aboriginal/Torres Strait Islander Bodies (RATSIB) is a regional organisation appointed under the Native Title Act 1993 (NTA) with prescribed functions set out in Part 11 of the Native Title Act 1993, which relate to: facilitation</li> </ul>

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Category	Relevant person identification methodology
	<p>and assistance; certification; dispute resolution; notifications; agreement making. They are also known, and referred to here, as Native Title Representative Bodies.</p> <ul style="list-style-type: none"> <li>Review of National Native Title Tribunal RATSIB areas that overlap or are coastally adjacent to the EMBA.</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>Where the area for which a Native Title Representative Body is recognised under the Native Title Act 1993, overlaps with the EMBA or is coastally adjacent to the EMBA, Woodside will assess the Native Title Representative Body as relevant.</li> </ul>
<p>Historical heritage groups or organisations</p>	<p>Woodside assesses relevance for groups or organisations whose responsibilities are focused on historical heritage using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>Using the Australasian Underwater Cultural Heritage Database to assess any known records Maritime Cultural Heritage sites (shipwrecks, aircraft and relics) within the EMBA (see <b>Section 4.9.1</b>).</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>Where there is a known underwater heritage site (shipwrecks, aircraft and relics) within the EMBA, the relevant group or organisation that manages the site will be assessed as relevant.</li> </ul>
<p>Local government and recognised local community reference/liaison groups or organisations</p>	<p>Woodside assesses relevance for local government and recognised local community reference/liaison groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>Review of Woodside maps (developed based on data from the WA Local Government, Sport and Cultural Industries My Council database and WA Local Government Association (WALGA) Local Government Directory maps) to assess any overlap between the local government's defined area of responsibility and the EMBA.</li> <li>Woodside hosts regular community reference/liaison group meetings. Members represent a cross-section of the community and local towns interests. Representatives are from community and industry and generally include, Woodside, State Government (for instance relevant Regional Development Commissions), Local Government, Indigenous Groups, Industry representative bodies, Community and industry organisations. Woodside considers these reference/liaison groups to be the appropriate recognised representatives of the local community for the oil and gas sector.</li> <li>Woodside reviews the community reference/liaison group's terms of reference to determine its area of responsibility and any overlap with the EMBA. For example, the Exmouth Community Liaison Group's area of responsibility in relation to Woodside's operational, development and planning activities, is defined in the terms of reference as the Exmouth sub-basin. Comparatively, the Karratha Community Liaison Group's area of responsibility is the Pilbara region (i.e. onshore).</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>The local government whose defined area of responsibility overlaps the EMBA is assessed as relevant.</li> <li>The community reference/liaison group whose defined area of responsibility overlaps the EMBA is assessed as relevant and consulted collectively via the relevant reference/liaison group.</li> </ul>
<p>Other non-government groups or organisations</p>	<p>Woodside assesses relevance for other non-government groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>Review of Woodside's existing consultation list.</li> <li>Website search of registered non-government groups or organisations (i.e. registered with an Australian Business Number (ABN) and publicly available contact</li> </ul>

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Category	Relevant person identification methodology
	<p>information) that may have public website material specific to the proposed activity at the time of development of the EP.</p> <ul style="list-style-type: none"> <li>• Organisation has a publicly available mission statement (or purpose) that clearly describes their collective functions, interests or activities.</li> <li>• Review of current website material to identify targeted information which demonstrates functions, interests or activities relevant to the potential risks and impacts associated with planned activities.</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>• Registered non-government groups or organisations with current targeted public website material specific to the proposed activity at the time of developing the EP and who have demonstrated functions, interests or activities relevant to the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation will be assessed as relevant.</li> </ul>
<p>Research institutes and local conservation groups or organisations</p>	<p>Woodside assesses relevance for research institutes and local conservation groups or organisations using the following next steps in its methodology:</p> <ul style="list-style-type: none"> <li>• Review of Woodside’s existing consultation list.</li> <li>• Website search for research institutes that may operate within the EMBA. This assessment is both activity and location based.</li> <li>• Website search for local conservation groups or organisations that regularly conduct conservation activities within the EMBA.</li> </ul> <p>Assessment of relevance:</p> <ul style="list-style-type: none"> <li>• Where there is known research being undertaken by a research institute within the EMBA, the research institute that is conducting the research will be assessed as relevant.</li> <li>• Local environmental conservation groups who regularly conduct conservation activities or have demonstrated conservation functions, interests or activities within the EMBA are assessed as relevant. This assessment is both activity and location based.</li> </ul>

### 5.3.5 Regulation 25(1)(e)

In addition to assessing relevance under regulation 25(1)(d), Woodside has discretion to categorise any other person or organisation as a relevant person under regulation 25(1)(e).

### 5.3.6 Identification of relevant persons under regulation 25(1)(e)

Woodside adopts a case-by-case approach for each EP to assess relevance under Regulation 25(1)(e).

### 5.3.7 Persons or organisations Woodside chooses to contact

In addition to undertaking consultation with relevant persons under regulation 25(1) there are persons or organisations that Woodside chooses to contact, from time to time, in relation to a proposed activity. For example, these are persons or organisations:

- that are ‘not relevant’ pursuant to regulation 25(1) but that Woodside has chosen to seek additional guidance from, for example, to inform the correct contact person that Woodside should consult, or engage with;

- that are 'not relevant' pursuant to regulation 25(1) but have been contacted as a result of consultation requirements changing or updated guidance from the Regulator; and
- where it is unclear what their functions, interests or activities are, or whether their functions, interests or activities may be affected. In this circumstance, engagement is required to inform relevance under Woodside's methodology. Woodside follows the same methodology for assessing a person or organisations relevance as it does during its initial assessment (as described in **Figure 5-1** and **Section 5.3**). The result of Woodside's assessment of relevance during the development of the EP is outlined at **Appendix F, Table 1**.

### 5.3.8 Assessment of Relevant Persons for the Proposed Activity

The result of Woodside's assessment of relevant persons in accordance with regulation 25(1) is outlined at **Appendix F, Table 1** and **Appendix F, Table 2**.

Persons or organisations that Woodside assessed as not relevant but chose to contact at its discretion in accordance with **Section 5.3.4** or self-identified and Woodside assessed as not relevant are summarised at **Appendix F, Table 1** and **Appendix F, Table 3**.

## 5.4 Consultation Material and Timing

Regulation 25(2) provides that a titleholder must give each relevant person sufficient information to allow the relevant person to make an informed assessment of the possible consequences of the activity on the functions, interests or activities of the relevant person. Regulation 25(3) provides that the titleholder must allow a relevant person a reasonable period for the consultation.

As set out in **Section 5.2**, Woodside notifies relevant persons, of the proposed activities, respecting that consultation is voluntary (for the relevant person) and collaborates on a consultation approach where further engagement is sought by the relevant person. Woodside understands that the consultation process should be appropriate for the category of relevant persons and that not all persons or organisations will require the same level of engagement. Woodside recognises that the level of engagement is dependent on the nature and scale of the PGGAP. Woodside recognises published guidance for good practice consultation relevant to different sectors and disciplines. Woodside's methodology for providing relevant persons with sufficient information as well as a reasonable period of time to provide feedback is set out in this section.

### 5.4.1 Sufficient Information

Woodside produces a Consultation Information Sheet for each EP. This is provided to relevant persons and organisations and is also available on Woodside's website for interested parties to access and to provide feedback on. The Consultation Information Sheet typically includes a description of the proposed petroleum and greenhouse gas activity, the Operational Area or Petroleum Activities Area (PAA) depending on the EP, where the activity will take place, the timing and duration of the activity, a location map of the Operational Area or PAA and EMBA, a description of the EMBA, relevant exclusion zones as well as a summary of relevant risks and mitigation and/or management control measures relevant to the proposed activity. It also sets out contact details to provide feedback to Woodside.

Woodside recognises that the level of information necessary to assist a person or organisation to understand the impacts of the proposed activity on their functions, interests or activities may vary and, also may depend on the degree to which a relevant person is affected. For example, Woodside considers that relevant persons who may be impacted by planned activities in the Operational Area, as a result of temporary displacement due to exclusion zones, may require more targeted information relevant to their functions, interests or activities. Woodside also acknowledges NOPSEMA’s brochure entitled Consultation on offshore petroleum environment plans information for the community, which advises consultees that they may inform titleholders that they only want to be consulted in the very unlikely event of an oil spill.

Woodside places advertisements in selected local, state and national newspapers. This typically includes the name of the EP Woodside is seeking feedback on, an overview of the activity, the consultation feedback date and the ways in which a person or organisation can provide feedback. Advertising in the local paper in the area of the activity is also consistent with the public notification process under section 66 of the Native Title Act for native title applications. Woodside typically aligns advertisement feedback timeframes with the timing described below. Feedback received is assessed in accordance with **Section 5.3** to determine relevance and evidenced in **Appendix F, Table 1** as appropriate.

Woodside utilises a range of tools to provide sufficient information to relevant persons, which may include one or more of the following:

- Consultation Information Sheet available on Woodside’s website
- Summary Consultation Information Sheet, presentations or summaries specific to a particular relevant person group
- subscription available on Woodside’s website to receive notification of new Consultation Information Sheets for Woodside EPs
- emails
- letters
- phone calls
- face-to-face meetings (virtual or in person) with presentation slides or handouts as appropriate
- maps outlining a persons or organisations defined area of responsibility in relation to the proposed activity, for example a fisheries management area or defence training area, and
- community meetings, as appropriate.

Woodside recognises that information may need to be provided to relevant persons in an iterative manner during the consultation process. Woodside considers that genuine two-way engagement may be demonstrated via information on incorporation of controls, where applicable, being provided to the relevant person so that the relevant persons understand how their input has been considered in the development of the EP.

Woodside communicates with relevant persons in different ways. Woodside recognises that as part of genuine two-way dialogue, these forms of communication may evolve, including for example due to changes to organisation representation, as relationships are further established, or an alternative form of communication is expressed by a person or organisation. Woodside acknowledges that there might be limitations in how it can consult with relevant persons.

Typical forms of communications for categories of relevant persons are set out below.

Category of relevant person	Typically accepted form of communication
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<b>Government departments / agencies – marine</b>	Woodside applies NOPSEMA’s guideline for engagement with Commonwealth government departments or agencies in line with <u>GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023</u> by using email for its consultation unless another form of communication is requested.
<b>Government departments / agencies – environment</b>	
<b>Government departments / agencies – industry</b>	
<b>Commercial fisheries and peak representative bodies</b>	<p><b>Commonwealth commercial fisheries:</b> Email is used as the primary form of communication with Commonwealth commercial fisheries in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p> <p><b>State commercial fisheries and recreational marine users:</b> The Western Australian Department of Primary Industries and Regional Development (DPIRD) has responsibility for managing the <i>Fish Resources Management Act 1994</i> and <i>Aquatic Resources Management Act 2016</i>, which limits the provision of contact details from the register to the name and business address of licence holders. Alternative forms of communication are at the licence holder’s discretion. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p> <p><b>Peak representative bodies:</b> Email is used as the primary form of communication with commercial fishery and recreational marine user peak representative bodies in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p>
<b>Recreational marine users and peak representative bodies</b>	
<b>Titleholders and Operators</b>	Email is used as the primary form of communication between titleholders and operators in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
<b>Peak industry representative bodies</b>	Email is used as the primary form of communication with peak representative bodies in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
<b>Traditional Custodians and nominated representative corporations</b>	There are many forms of communication that Woodside uses on a case-by-case basis and as appropriate to or requested by the specific group, such as email, phone calls, meetings and community forums. Other forms of communication are used on request.
<b>Native Title Representative Bodies</b>	There are many forms of communication that Woodside uses on a case-by-case basis and as appropriate to or requested by the specific group, such as email, phone calls, meetings and community forums. Other forms of communication are used on request.
<b>Historical heritage groups or organisations</b>	NOPSEMA’s guideline ( <u>GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023</u> ) for engagement with government departments or agencies is used as a reference for Woodside’s approach for communicating with historical heritage groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
<b>Local government and recognised local community reference/liaison groups or organisations</b>	<p><b>Local government:</b> NOPSEMA’s guideline (<u>GL1887 – Consultation with Commonwealth agencies with responsibilities in the marine area – January 2023</u>) for engagement with local government is used as a reference for Woodside’s approach for communicating with historical heritage groups or organisations.</p> <p><b>Community reference/liaison groups and chambers of commerce:</b> Email is used as the primary form of communication with local community reference/liaison groups or organisations in the ordinary course of business. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.</p>

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<b>Other non-government groups or organisations</b>	Email is used as the primary form of communication with Other non-government groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.
<b>Research Institutes and Local conservation groups or organisations</b>	Email is used as the primary form of communication with research institutes and local conservation groups or organisations. Other forms of communication, such as phone calls, and meetings and/or presentation briefings are used on request.

Information which is provided to relevant persons for the purposes of consultation on this EP is summarised at **Appendix F, Table 2**.

**Appendix F, Table 3** sets out the information which is provided to persons or organisations that are not relevant for the purposes of regulation 25 but which Woodside has chosen to contact.

When engaging in consultation, Woodside notifies relevant persons that, in accordance with regulation 25(4), the relevant person may request that particular information the person or organisation provides in the consultation not be published and that information subject to that request will not be published.

### 5.4.2 Reasonable period for consultation

Woodside seeks to consult in order to support preparation of its Environment Plan. Woodside recognises that what constitutes a reasonable period for consultation should be considered on a case-by-case basis, with reference to the nature, scale and complexity of the activity.

Woodside recognises that information may need to be provided to relevant persons in an iterative manner during the consultation process. Woodside considers that genuine two-way engagement may be demonstrated via information on incorporation of controls, where applicable, being provided to the relevant person so that the relevant person understands how their input has been considered in the development of the EP.

Woodside considers its methodology allows relevant persons a reasonable period for consultation (regulation 25(3)). A reasonable period for all relevant persons, including Traditional Custodian relevant persons, to participate in consultation for this EP has been provided.

The consultation period under this EP has satisfied benchmark periods under other relevant legislative processes:

- regulation 30 of the Regulations sets out a public consultation period of 30 days
- The Department of Mines and Petroleum “Guidelines for Consultation with Indigenous People by Mineral Explorers” directs a period of 21- 30 days of consultation with traditional owners
- While repealed, guidance taken from the Aboriginal Cultural Heritage Act 2021— Consultation Guidelines (Government of Western Australia, 2023) suggests that up to 12 weeks may be a reasonable period of time to allow identification, contact, and response, from First Nations peoples (subject to any alternative timeframe being agreed through co-design of consultation).

This period of consultation demonstrates that Woodside has provided a “reasonable period” for relevant persons to consult in accordance with regulation 25(3). Commentary in the Tipakalippa Appeal judgment limits consultation to a process that must be capable of being discharged within a reasonable time:

*“it must be taken to be the regulatory intention that the consultation requirement cannot be one that is incapable of being complied with within a reasonable time...”*<sup>6</sup>

Woodside seeks feedback in order to support preparation of its environment plan. What constitutes a reasonable period for consultation is considered on a case-by-case basis, with reference to the person being consulted and the nature, scale and complexity of the activity.

Woodside's typical approach to enable a reasonable period for consultation is as follows:

- advertising in selected local, state and national newspapers to give persons or organisations the opportunity to understand the activity and identify whether their functions, interests or activities may be affected;
- providing consultation materials directly to identified relevant persons as well as persons who are not relevant but Woodside chose to contact, and providing a target date for feedback. Woodside acknowledges that feedback may be received from relevant persons following the target date;
- acknowledging that the way in which Woodside provides consultation information may vary depending on the relevant person or organisation and, may depend on the degree to which a relevant person or organisation is affected. Different consultation processes may be required for relevant persons and organisations depending on the information requirements;
- following up with relevant persons prior to EP submission. Where possible, Woodside will endeavour to use an alternative method of communication to contact the relevant person; and
- engaging in two-way dialogue with relevant persons or organisations where feedback is received.

**Appendix F, Table 2 and Table 3** sets out a history of consultation and demonstrates that a reasonable period of consultation has been afforded for each relevant person.

Woodside considers that the “reasonable period” of consultation for this EP has closed.

As detailed in **Section 5.6**, if comments and feedback are received after the EP has been submitted, Woodside will consider those comments and update controls as appropriate, at all stages during the life of the EP as per Woodside’s ongoing consultation approach as described in **Section 5.7**.

### 5.4.3 Discharge of Regulation 25

The Full Federal Court made clear in the Tipakalippa Appeal that consultation should be approached in a “*reasonable*”, “*pragmatic*” and “*not so literal*” way, so that consultation obligations were capable of being met by titleholders (**Section 5.5.1**).<sup>7</sup> Consultation is a “real world activity” and must be capable of reasonable discharge.<sup>8</sup> The Full Federal Court referred to Native Title

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<sup>6</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [136].

<sup>7</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 [89], [98], [103]-[104] and [109].

<sup>8</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at [89].

cases as an illustration that reasonable limits should be applied to consultation efforts to ensure the process is workable.<sup>9</sup>

When the titleholder demonstrates that it has provided sufficient information and a reasonable period for consultation, the regulation 25 consultation requirements are met.<sup>10</sup> Meeting these obligations requires the evaluative judgment to determine reasonable satisfaction of the consultation obligation, and as such, the regulator uses its discretion to determine if these criteria are met. The nature of the person being consulted, and their function, interest and activity that may be affected, will inform the manner of consultation and the reasonable period to be afforded.<sup>11</sup>

The titleholder is not required to obtain consent from a consultee to engage in the activity or confirmation from a consultee that consultation is complete. A titleholder is required to provide an opportunity to consult.

The Federal Court has commented that a “reasonable opportunity” for consultation must be afforded to relevant persons.<sup>12</sup> A reasonable opportunity may not be every opportunity requested and is limited to reasonable opportunities to consult.

Woodside has completed all steps required to discharge its consultation obligations. Woodside has provided sufficient information and a reasonable period of time to enable relevant persons to make an informed assessment of the possible consequences of the activity on their functions, interests or activities, and sufficient time to provide relevant feedback for Woodside to assess relevant persons' objections or claims and action the assessment and response. Woodside has also provided a reasonable opportunity for there to be genuine two-way dialogue on environmental impacts and concerns.

Woodside has discharged its duty under regulation 25. Woodside considers that consultation under regulation 25 is complete.

**Appendix F, Table 2 and Table 3** of this EP sets out the history of consultation under regulation 25. To the extent a relevant person says that it has further information to share or claims that consultation under regulation 25 has not completed, **Appendix F, Table 2 and Table 3** provide reasons specifically why Woodside considers consultation under regulation 25 has been met in relation to that relevant person.

## 5.5 Context of Consultation Approach with First Nations

To comply with regulation 25, Woodside identifies and consults Traditional Custodians whose functions, interests or activities may be affected by the activities under an Environment Plan.

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<sup>9</sup> *Santos NA Barossa Pty Ltd v Tipakalippa* [2022] FCAFC 193 at [96] and [103].

<sup>10</sup> *Explanatory Statement, Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023*, page 29.

<sup>11</sup> *Explanatory Statement, Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023*, page 30 and *Santos NA Barossa Pty Ltd v Tipakalippa* [2022] FCAFC 193 at [153].

<sup>12</sup> *Cooper v National Offshore Petroleum Safety and Environmental Management Authority (No 2)* [2023] FCA 1158 at paragraph [11]; *Santos NA Barossa Pty Ltd v Tipakalippa* [2022] FCAFC 193 at [153].

### 5.5.1 Approach to Methodology – Woodside’s Interpretation of Tipakalippa Appeal

Woodside has implemented a consultation methodology consistent with regulation 25 and guidance provided in the Tipakalippa Appeal (**Section 5.25.2**). Woodside’s consultation methodology allows for a sufficiently broad capture of Traditional Custodian relevant persons, provides for informed consultation, follows cultural protocols and allows a reasonable opportunity for consultation with Traditional Custodians whose functions, interests and activities may be affected by the activity described in this EP (**Section 5.5.2.1 to 5.5.2.4**).

Woodside notes the Full Federal Court discussed several Native Title Act 1993 (Cth) (**NTA**) cases in response to a submission made in that case that a requirement under regulation 25 to consult “each and every” relevant person would be “unworkable”. The reference to native title cases dealt with how decision-making processes under the NTA requiring “all” members of a group to be contacted for communal approval are interpreted by courts in a “reasonable”, “pragmatic” and “not so literal” way,<sup>13</sup> and how obligations to consult “each and every” person under Regulation 25 should be interpreted in a similarly pragmatic way so that consultation is workable. The reference to NTA authorities was made by analogy:

*“It can be seen that the terms of [the native title legislation] are somewhat absolute – “all”. However, [the native title legislation] has consistently been construed in a way that is not so literal ... The cases concerning [the native title legislation] ... have reiterated ... that [the native title legislation] does not require that “all” of the members of the relevant claim group be involved in the decision. The key question will be whether a reasonable opportunity to participate in the decision-making process has been afforded by the notice for a relevant meeting.”<sup>14</sup>*

*“We consider the authorities in relation to processes under the NTA to be **illustrative** of how a seemingly rigid statutory obligation to consult persons holding a communal interest may operate in a workable manner”<sup>15</sup> (emphasis added).*

*“there is no definition of what constitutes “consultation for the purpose of [regulation 25]... A titleholder will need to “demonstrate” to NOPSEMA that what it did constituted consultation appropriate and adapted to the nature of the interests of the relevant persons”<sup>16</sup> (emphasis added).*

The Judgment in the Tipakalippa Appeal makes clear that a Titleholder will have some decisional choice in identifying which natural person(s) are to be approached, how the information will be given to allow the “relevant person” to assess the possible consequence of the proposed activities on their functions, interests or activities, and how the requisite consultation is undertaken.<sup>17</sup>

<sup>13</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [95], [98], [103]-[104] and [109].

<sup>14</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [98].

<sup>15</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [96].

<sup>16</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [104].

<sup>17</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [47] and [48].

Woodside takes this to mean that consultation is not fixed to a rigid process, and indeed, will need to be adapted so that it is informed by the relevant person or group. Woodside has met its regulation 25 requirements through its consultation methodology (**Section 5.5.2**).

Consistent with the Tipakalippa Appeal, Woodside considers NTA-style “full group” meetings are not the only way for there to be compliance with regulation 25 in relation to Traditional Custodian relevant persons. Nominated representative corporations (such as Prescribed Bodies Corporates (PBCs) established under the NTA) have a designated role of representing the views of their member Traditional Custodians. They have established methods for engaging with their own members. Woodside will not undermine the purpose and authority of nominated representative corporations by requiring full group meetings where the nominated representative corporations have not requested engagement of members via full group meetings. We do not consider it appropriate for titleholders to direct or challenge the nominated representative corporations on how to engage with their members.

Woodside's approach described below demonstrates that sufficient information and a reasonable opportunity is provided to individual Traditional Custodians to provide feedback on Woodside activities beyond the opportunity provided to nominated representative corporations.

### 5.5.2 Consultation Method

Woodside's First Nations team has experience in engaging and working with First Nations organisations and individuals, including having worked within the Commonwealth native title and cultural heritage systems and state and territory cultural heritage and land rights systems, for several decades. The team understands the complexities of making information accessible to groups and individuals and engaging in accordance with First Nations groups' established channels of communication and methods of consultation. The First Nations team exercises its professional judgement and is deeply respectful of long-standing relationships (where in place) when considering consultation with First Nations groups. The First Nations team's approach is also informed by the established systems of recognition for First Nations groups and their nominated representative corporations within particular jurisdictions.

For example, the methodology for engaging with First Nations groups in the Northern Territory (not relevant for this EP) tends to centre around engagement through Aboriginal land councils (under the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth)) as well as community meetings that target clan groups where they do not have PBCs or other nominated representative corporations to represent them. By contrast, recognition for First Nations groups and their nominated representative corporations in Western Australia falls under the Native Title Act 1993 (Cth) because the vast majority of the Western Australian coastline is settled under the native title regime. This means that the methodology and process for consultation in Western Australia places greater emphasis on, but is not limited to Native Title Representative Bodies and PBCs. Native title determinations provide certainty about the appropriate Traditional Custodian groups that have the cultural authority to speak for country adjacent to the EMBA, and also help Woodside to identify Traditional Custodian persons and groups asserting Traditional Custodianship. The Judgment in the Tipakalippa Appeal endorses methods of consultation with groups of relevant persons that are appropriate and adapted to the

characteristics of groups.<sup>18</sup> Woodside's consultation methodology is adapted and appropriate to the recognised systems of communal interests in Western Australia.

In Western Australia (relevant for this EP), Woodside has sought to follow the established, effective and respectful means of communication used by Native Title Representative Bodies and nominated representative corporations (including PBCs) with their respective First Nations communities. Woodside follows these processes for the appropriate broad capture of individuals' awareness of our activities, to self-identify (**Section 5.5.2.2**), and to provide feedback to inform the management of environmental impacts and risks.

Using these tools, Woodside communicates information about Environment Plans by:

- advertising in relevant newspapers. This encourages self-identification, by advertising proposed activities widely through newspapers that have national and intra-state circulation, i.e., Koori Mail, National Indigenous Times, The West Australian;
- creating carefully considered Consultation Summary Sheets with information developed by an Indigenous member of the First Nations Team to remove jargon and provide relevant information for people to have informed understandings about the activities;
- direct contact through nominated representative corporations;
- utilising social media (i.e. Facebook/Instagram), texts and emails. These mediums are the preferred communication methods used by Traditional Custodians throughout Western Australia and on that basis used by Native Title Representative Bodies and other government agencies and industry, to engage with Traditional Custodians or call meetings. First Nations woman, Professor Bronwyn Castle through 10 years of research found "Social media is an intrinsic part of daily life. The use of Facebook is around 20 per cent higher [among First Nations people] than the national average across all geographical locations" (Social media mob: being Indigenous online, Professor Bronwyn Carlson (2018));
- For ongoing consultation post regulation 25 consultation, Woodside introduced a Program of Ongoing Engagement with Traditional Custodians which sets out Woodside's commitment to ongoing engagement and support to care for and manage country, including Sea Country. The program was developed in response to Traditional Custodian feedback;
- Woodside has members of its First Nations team who are based in Karratha and Roebourne and who serve as on-Country points of contact for First Nations organisations and individuals. These team members have broad local knowledge and established, on-the-ground relationships within communities. This helps contribute to positive outcomes including encouraging First Nations attendance and involvement at Woodside's information sessions and Community roadshows. Team members on the ground engage in a great deal of preparatory work including by distributing information and providing notice to the community to support First Nations attendance at information sessions and Community roadshows;
- From the commencement of engagement with Traditional Custodians, Woodside seeks direction on how they prefer to be consulted and has consulted accordingly. Consultation processes that are informed by Traditional Custodians and co-designed on a case-by-case basis and includes their direction as to cultural protocols, structure of consultation and whom to appropriately consult with (such as elders).

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<sup>18</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 at paragraph [95].[104].[153].

- Holding meetings on country at a place and time agreed with the Traditional Custodians and offering and providing financial assistance for meeting expenses (as appropriate); and
- Providing information specifically designed to be easily understood, to reach all relevant people, and give a reasonable period of time for those people to make an informed assessment of the possible consequences of the proposed activity on them.

The First Nations team approach to consultation is also consistent with the Federal Court’s decision in the *Munkara Case*. The *Munkara Case* notes that the word “culture” (and hence the word “cultural”) has a communal aspect to it. To establish cultural features, it is necessary that the beliefs and values are held by the relevant people *as a people*. For values, features or beliefs that are expressed by an individual to be “cultural” they cannot simply be an individual’s belief - the belief must have a communal aspect too, and demonstrate that the “individual beliefs are broadly representative of the beliefs of other members of the group”<sup>19</sup>. The phrase “cultural features”, when applied to “people” as constituent parts of an ecosystem, is not directed to idiosyncratic views or beliefs of an individual<sup>20</sup>. When the First Nations team is told that a particular value is cultural by an individual Traditional Owner, that information is taken back to the relevant cultural authority to test its broad acceptance. In the case of gender sensitive information, that information would be restricted to the specific gender within the community.

### 5.5.2.1 Identification of Relevant Persons

In order to undertake consultation, Woodside has developed a methodology for identifying relevant persons, in accordance with regulation 25(1) of the Regulations (**Section 5.2** and **Appendix F**).

Specific to Woodside’s approach for identifying relevant Traditional Custodians, Woodside’s First Nations Communities Policy and consultation approach is guided by Traditional Custodians by directing consultations through their nominated representative corporation. This has been implemented by Woodside through consultation with a nominated representative corporation where that corporation has advised Woodside that it acts as the representative body for a Traditional Custodian group and has requested that Woodside engage with it as the representative body for that Traditional Custodian group.

Woodside asks nominated representative corporations (such as PBCs) and Native Title Representative Bodies to identify individuals that should be consulted, and enables individuals to self-identify in response to national and local advertising, social media and community engagement opportunities (**Section 5.5.2.4**). Where there is a nominated representative corporation for an area, unless directed by the nominated representative corporation, Woodside does not directly approach individuals for consultation, because this has the potential to undermine the role of the nominated representative corporations. Approaching individuals directly is a practice that is no longer considered acceptable because of divisions it has been shown to cause in communities. In addition to asking for the identification of individuals, Woodside also asks nominated representative corporations to distribute consultation information to whomever the nominated representative

<sup>19</sup> *Munkara v Santos NA Barossa Pty Ltd* (No 3) [2024] FCA 9 at [205]

<sup>20</sup> *Munkara v Santos NA Barossa Pty Ltd* (No 3) [2024] FCA 9 at [205]

corporations deem appropriate including members of the nominated representative corporations who are communal rights holders.

Having said this, as set out in further detail in **Section 5.5.2.4** below, individuals are also given the opportunity to self-identify, consult and provide their own feedback on the proposed activity. When approached in this way, Woodside will engage individuals as relevant persons and will also (subject to any confidentiality or cultural restrictions) advise the nominated representative body of the consultation where it relates to cultural values. These methods of consultation are consistent with requirements for notification under the Native Title Act 1993 (Cth), such as under the future act provisions (section 29), which requires notification of the Native Title Representative Body, the PBC (or nominated representative) and notification through newspapers. The notification process has been selected as a respectful, practical and pragmatic analogue for consultation with First Nations peoples, rather than requiring members to be notified via a formal authorisation process which aims to seek, from members, authorisation of agreements and native title/compensation claims under the Native Title Act 1993 (Cth)<sup>21</sup>.

In this consultation, Woodside requested nominated representative corporations to identify any potential individual relevant persons for consultation. Woodside requests nominated representative corporations to distribute consultation materials to their members. However, Woodside recognises that the process is voluntary and that it cannot compel nominated representative corporations (such as PBCs) to do so. Woodside also recognises that it would not be appropriate to seek to audit the nominated representative corporations for compliance with any member consultation request.

#### 5.5.2.2 Opportunity to Self-identify and Identifying Other Individuals

Woodside requests nominated representative corporations and Native Title Representative Bodies to identify other individuals to consult with or individuals who may seek to self-identify for a proposed activity. Woodside also advertises broadly through Indigenous, national and local advertising, social media and community engagement opportunities to provide individuals with an opportunity to consult. Woodside does not directly approach individuals for consultation, as this undermines the role of the nominated representative corporations (**Section 5.5.2.1**). Woodside's approach to providing individual Traditional Custodians the opportunity to self-identify and consult for an Environment Plan is as follows:

- Woodside applies the principles of self-determination when consulting with Traditional Custodians by consulting through the Traditional Owners' authorised representative entities.
- Recognising the function of nominated representative corporations (such as PBCs) and Native Title Representative Bodies to represent communal interests and manage cultural values, Woodside requests that the information provided to representative entities is provided to their members but Woodside recognises the process is voluntary and Woodside cannot compel them to do so nor seek to audit the representative entities for compliance with any request.
- Representative entities cannot provide membership details to Woodside due to individual confidentiality requirements.

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<sup>21</sup> Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193, at [104]



- Woodside requests advice as to who else Woodside should be consulting but recognises the process is voluntary and cannot compel nominated representative corporations to provide this information.
- Modern Indigenous engagement practises rely on the building and maintaining of respectful relationships. Most nominated representative corporations to date have requested the building of that relationship, where one is not already in place.
- While Woodside has, in some cases, approached individual directors and elders outside of this process due to requirements imposed in Environment Plan consultation, this approach is considered inappropriate by modern Indigenous engagement standards, fundamentally undermining the authority of the authorised representative entity and can be detrimental to the relationship.

For this proposed activity, Woodside requested nominated representative corporations (including PBCs) and Native Title Representative Bodies to identify any potential individual relevant persons for consultation, and to distribute consultation materials to their member base. However, Woodside recognises the process is voluntary and it cannot compel them to do so nor seek to audit the representative entities for compliance with any request. Woodside has not been directed to engage individual Traditional Custodians by nominated representative corporations for this proposed activity. Woodside has nevertheless provided reasonable opportunity for individual Traditional Custodians to engage in consultation through appropriate and adapted consultation methods.

#### 5.5.2.2.1 Sufficient Information

Woodside recognises that the information sufficient to allow a person or organisation to make an informed assessment of the possible consequences of the proposed activity on their functions, interests or activities may vary and also may depend on the degree to which a relevant person is potentially affected.

Woodside produces a Consultation Information Sheet for each Environment Plan which is provided to relevant persons and organisations to provide the opportunity for feedback on the activity (**Appendix F**). In response to Traditional Custodians' feedback, Woodside has tailored effective consultation methods for its activities, specifically designed for Traditional Custodians, so that information is provided in a form that is readily accessible and appropriate. The targeted Consultation Summary Sheet developed and reviewed by Indigenous representatives so that content is appropriate to the intended recipients, is then provided to relevant Traditional Custodian groups. Phone calls are made to provide context to the consultation.

Where face to face consultation meetings are requested, Woodside coordinates engagement at the Traditional Custodians' location of choice (where practicable) and with their nominated attendees. Key project personnel, environmental and First Nations relations experts are typically present to enable effective communication and prompt response to questions. Materials for these sessions incorporate visual aids such as photos, maps and videos, and plain language suitable for people with a non-technical background.

During consultation Woodside provides relevant persons with additional information, as appropriate in response to requests. There is no requirement to provide relevant persons with all information or documents requested, and a titleholder will have provided sufficient information even where it has not provided all information or documents requested.

Woodside has sought to provide sufficient information to individual members of nominated representative corporations (such as PBCs) by providing information to representative bodies and requesting dissemination with members. However, Woodside recognises consultation is voluntary

and it cannot compel them to do so nor would it be appropriate to seek to audit the representative entities for compliance with any request.

### 5.5.2.3 Reasonable Period for Consultation

Woodside seeks to consult in order to support preparation of its Environment Plan. Woodside recognises that what constitutes a reasonable period for consultation should be considered on a case-by-case basis, with reference to the nature, scale and complexity of the activity (**Appendix F**).

### 5.5.2.4 Discharge of Regulation 25

Woodside's consideration and approach to discharging regulation 25 for relevant persons is discussed in **Section 5.4.3**. In addition to this, Woodside has considered the application of regulation 25 specifically to First Nations based on the Tipakalippa Appeal.

In relation to Traditional Custodian relevant persons (and all relevant persons), Woodside has discharged its duty under regulation 25. Woodside considers that consultation under regulation 25 is complete (**Appendix F**).

## 5.6 Providing Feedback and Assessment of Merit of Objections or Claims

There are a number of ways in which feedback can be provided. Feedback can be provided through the Woodside feedback email or via the Woodside feedback toll free phone line as outlined in the Consultation Information Sheet and the Woodside website. Where appropriate, consultation may also be supported by phone calls or meetings. An environment plan feedback form is also available on Woodside's website enabling stakeholders to provide feedback on proposed activities, or to request additional information.

Woodside consults widely on its EPs and notes that feedback is received in various forms. Feedback that is considered inappropriate or that puts the environment, health, safety or wellbeing of Woodside employees or operations at risk will not be tolerated. Woodside respects people's rights to protest peacefully and lawfully but actions that put the environment, health, safety or wellbeing of Woodside employees or operations at risk go beyond those boundaries.

Woodside accepts feedback and engages in consultation in order to achieve the aims set out in **Section 5.2**. Woodside recognises that there are persons and organisations that take a view that Woodside's operations and/or growth projects should be stopped or at least delayed as far as possible. Whilst Woodside assesses the merits of objections or claims received, it acknowledges NOPSEMA's guidance in its brochure entitled Consultation on offshore petroleum environment plans information for the community, which states that relevant persons are free to respond on any matter and raise any concern, however this may not be able to be considered if it is outside the scope or purpose of the environment plan and approval process, for example, statements of fundamental objection to offshore petroleum and greenhouse gas activities or information containing personal threats or profanities. Under regulation 34(g), there is no requirement for a relevant person to agree or confirm that they have been adequately consulted.

Feedback from relevant persons is reviewed and an assessment of the merits is made of information provided as well as objections or claims about the adverse impact of each activity to which the EP relates. This might, for instance, be done through a review of data and literature and for relevance to the nature and scale of the activity outlined in the EP. Consistent with the aim of consultation in Section 5.2, Woodside will consider information received when reviewing and designing measures

to put in place to minimise harm to relevant persons and where reasonable or practical to further manage impacts and risks to ALARP and acceptable levels.

Woodside considers feedback during consultation from relevant persons and other persons Woodside chose to contact (see Section 5.3.4). This information is summarised in Appendix F, Table 1 and Table 2 of the EP and includes a statement of Woodside's response, or proposed response, if any, to each objection and claim.

In accordance with regulation 26(8) of the Environment Regulations, sensitive information (if any) in an EP, and the full text of any response by a relevant person to consultation under regulation 25, must be contained in the sensitive information part of the plan and not anywhere else in the plan.

## 5.7 Ongoing Consultation

Consultation can continue to occur during the life of an EP, including after an EP has been accepted by NOPSEMA.

As per Woodside's ongoing consultation approach (refer to **Section 7.8.2.1**), feedback and comments received from relevant persons continue to be assessed and responded to, as required, throughout the life of an EP, including during its assessment and once accepted, in accordance with the intended outcome of consultation.

Should consultation feedback be received following the acceptance of an EP that identifies a measure or control that Woodside considers requires implementation or updates to meet the intended outcome of consultation, Woodside will apply its Management of Change and Review process as appropriate (see **Section 7.6**).

## **6. ENVIRONMENTAL IMPACT AND RISK ASSESSMENT, PERFORMANCE OUTCOMES, STANDARDS AND MEASUREMENTS CRITERIA**

### **6.1 Overview**

This section presents the impact and risk analysis and evaluation, EPOs, EPSs and MC for the PGGAP, using the methodology described in Section 2 of this EP. Impacts and risks associated with the PGGAP are summarised in Table 6-1 and evaluated in Sections 6.5 and 6.6.

Table 6-1: Environmental impact analysis summary of planned and unplanned activities

Aspect	EP Section	Risk Rating				Acceptability of Impact/Risk
		Impact/Consequence	Potential Impact/Consequence Level	Likelihood	Current Risk Rating	
<b>Planned Activities (Routine and Non-routine)</b>						
Physical presence: Interaction with third party vessels	6.5.1	F	Social and Cultural – No lasting effect (less than one month); localised impact not significant to areas/items of cultural significance receptors.	-	-	Broadly acceptable
Physical presence: Disturbance to benthic habitat from geotechnical and geophysical surveys	6.5.2	E	Environment - Slight, short term local impact (less than one year) on species and habitat (but not affecting ecosystems function)	-	-	Broadly acceptable
Routine acoustic emissions: Generation of noise from survey vessels	6.5.3	F	Environment – No lasting effect (less than one month); localised impact not significant to species.	-	-	Broadly acceptable
Routine acoustic emissions: Generation of noise from geophysical and geotechnical survey equipment	6.5.4	E	Environment - Slight, short term local impact (less than one year) on species and habitat (but not affecting ecosystems function)	-	-	Broadly acceptable
Routine light emissions: External lighting on survey vessel	6.5.5	F	Environment - No lasting effect (less than one month); localised and temporary disturbance to marine fauna.	-	-	Broadly acceptable
Routine atmospheric emissions from fuel use	6.5.6	F	Environment - No lasting effect (less than one month); localised impact not significant to environmental receptors (e.g. air quality).	-	-	Broadly acceptable
Routine and non-routine discharges to the marine environment from survey vessels	6.5.7	F	Environment – No lasting effect (less than one month); localised impact not significant to environmental receptors.	-	-	Broadly acceptable
<b>Unplanned Activities (Accidents, Incidents, Emergency Situations)</b>						

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Aspect	EP Section	Risk Rating				Acceptability of Impact/Risk
		Impact/Consequence	Potential Impact/Consequence Level	Likelihood	Current Risk Rating	
Accidental hydrocarbon release: Vessel collision	6.6.1	D	Environment - Impact magnitude is within applicable standards but is considered to have significance. Slight, minor or moderate impacts are predicted to occur to receptors of high, medium or low sensitivity respectively.	1	M	Broadly acceptable
Physical presence: Vessel collision with marine fauna	6.6.20	E	Environment - The receptor will experience a noticeable effect, but the impact magnitude is sufficiently small and well within applicable standards, and/or the receptor is of low value.	1	L	Broadly acceptable
Physical presence: Disturbance to seabed from dropped objects, equipment loss	6.6.3	F	Environment - No lasting effect (less than one month); localised impact not significant to environmental receptors (e.g. benthic habitats).	1	L	Broadly acceptable
Unplanned discharges: Loss of solid hazardous and non-hazardous wastes/equipment	6.6.4	F	Environment - No lasting effect (less than one month); localised impact not significant to environmental receptors (e.g. water Quality, species).	3	M	Broadly acceptable
Unplanned discharges: Deck, subsea spills from geotechnical and geophysical equipment	6.6.5	F	Environment - No lasting effect (less than one month); localised impact not significant to environmental receptors (e.g. water quality).	3	M	Broadly acceptable
Physical presence: Accidental Introduction of Invasive Marine Species	6.6.6	E	Environment – Slight, short term local impact (less than one year) on species, habitat (but not affecting ecosystems function), physical or biological attributes. Reputation and Brand – Minor, short-term impact (one to two years) to reputation and brand. Close scrutiny of asset level operations or future proposals.	0	L	Broadly acceptable

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## 6.2 Cumulative Impacts

Woodside has assessed the cumulative impacts of the PGGAP in relation to other relevant petroleum and greenhouse gas activities that could realistically result in overlapping temporal and spatial extents. In particular, planned activities at Angel and GWA Facilities near Operational Areas A and B.

Additionally, where relevant the cumulative impacts of activities associated with undertaking multiple concurrent or parallel activities associated with this PGGAP have been assessed for cumulative impacts as relevant in Sections 6.5 and 6.6.

## 6.3 PGGAP Presentation

The environmental impact and risk analysis and evaluation, demonstration of ALARP and acceptability, EPOs, EPSs and MC are presented in tabular form throughout Sections 6.5 and 6.6, as shown in the example below. Italicised text in this example table denotes the purpose of each part of the table, with reference to the relevant sections of the Regulations and/or this EP.

Context													
Description of the context for the impact/risk. Regulation 21(1), 21(2) and 21(3)													
Description of the Activity – Regulation 21(1)				Description of the Environment – Regulations 21(2)(3)				Consultation – Regulation 25 and 24(b)					
Impact and Risk Evaluation Summary													
Summary of ENVID outcomes													
Source of Impact/Risk Regulation 21(1)		Environmental Value Potentially Impacted Regulations 21(2)(3)					Evaluation Regulations 21(5)(6)						
		Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability
Summary of source of risk/ impact													
Description of Source of Impact or Risk													
Description of the identified risk/impact including sources or threats that may lead to the impact/risk or identified event. Regulation 21(1).													
Impact or Consequence Assessment													
Environmental Value(s) Potentially Impacted													
Discussion and assessment of the potential impacts to the identified environment value/s in accordance with Regulation 21(5) and 21(6). Description of potential impacts to environmental values aligned to Woodside impacts and risk classifications (Section 2.5.3).													

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS)22	Benefit in Impact/Risk Reduction	Proportionality	Control Adopted
ALARP/Hierarchy of Control Tools Used - Section 2.5.2.2				
Summary of control considered to ensure the impacts and risks are continuously reduced to ALARP. Regulation 21(5)(c).	Technical/logistical feasibility of the control. Cost/sacrifice required to implement the control (qualitative measure).	Qualitative commentary of impact/risk that could be averted/ environmental benefit gained if the cost/ sacrifice is made and the control is adopted.	Proportionality of cost/sacrifice vs environmental benefit. If proportionate (benefits outweigh costs), the control will be adopted. If disproportionate (costs outweigh benefits), the control will not be adopted.	If control is adopted, reference to Control No. provided.
<p>ALARP Statement:</p> <p>Made on the basis of the environmental impact/risk assessment outcomes, use of the relevant tools appropriate to the decision type (Section 2.5.2.1) and a proportionality assessment in accordance with Regulation 34(b).</p>				

Demonstration of Acceptability
<p>Acceptability Statement:</p> <p>Made on the basis of applying the process described in Section 2.6 in accordance with Regulation 34(c)</p>

EPOs, PS and MC			
Environmental Performance Outcomes	Controls	Performance Standards	Measurement Criteria
<p>EPO No.</p> <p>S: Specific performance that addresses the legislative and other controls that manage the activity, and against which performance by Woodside in protecting the environment will be measured.</p> <p>M: Performance against the outcome will be measured through</p>	<p>C No.</p> <p>Identified control adopted to ensure that the impacts and risks are continuously reduced to ALARP. Regulation 21(5)(c).</p>	<p>PS No.</p> <p>Statement of the performance required of a control measure. Regulation 21(7)(a).</p>	<p>MC No.</p> <p>Measurement criteria for determining whether the outcomes and standards have been met. Regulation 21(7)(c).</p>

22 Qualitative measure

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EPOs, PS and MC			
Environmental Performance Outcomes	Controls	Performance Standards	Measurement Criteria
implementation of the controls via the MC. A: Achievability/feasibility of the outcome demonstrated via discussion of feasibility of controls in ALARP demonstration. Controls are directly linked to the outcome. R: The outcome will be relevant to the source of risk/impact and the potentially impacted environmental value <sup>23</sup> T: The outcome will state the timeframe during which the outcome will apply or by which it will be achieved.			

#### 6.4 Potential Environment Risks Not Included Within the Scope of the Environment Plan

The ENVID identified a number of environmental risks that were assessed as not being applicable (not credible) as a result of the PGGAP. Therefore, they were determined to not form part of this EP. These are described in the following sections for information only.

##### 6.4.1 Bunkering

No bunkering at sea will be performed. Any bunkering will be performed during a port call, out of the scope of this EP. Consequently, risks associated with this activity are not considered applicable to this EP.

##### 6.4.2 Underwater Noise Emissions from Helicopters and ROVs

It is not credible that airborne noise helicopter transfers would add to levels of underwater noise emanating from the project vessels and GP/GT equipment. Similarly, it is not credible that noise from ROV operations at the seabed would add to levels of noise emanating from project vessels just below the sea surface, or noise emissions from GP/GT equipment. Noise emissions from these other sources would not add to cumulative sound fields from project vessel and GP/GT equipment to any discernible extent. As such noise emissions from these sources has not been considered in Section 6.6.3.

<sup>23</sup> Where impact/consequence descriptors are capitalised and presented within EPOs in Section 6; performance level corresponds with those aligned with the Woodside Risk Matrix (refer Section 2.6).

### 6.4.3 Indirect Impacts

For the PGGAP, the potential ‘Indirect’ environmental impacts and risks evaluated are those associated with mobilisation/demobilisation of the vessels to the Operational Areas, which have been considered in the environmental impact assessment in Section 6.6 and Section 6.7. Due to the nature and scale of these potential indirect environmental impacts and risks (such as fuel usage, interaction with other marine users and usual vessel discharges), and the regulatory frameworks and applicable maritime regulations in place to manage them, Woodside considers the potential impacts and risks from mobilisation and demobilisation of the survey vessels to be inherently ALARP in its current state. Therefore, Woodside considers that standard vessel operations are appropriate to manage the potential impacts and risks from mobilisation and demobilisation of the vessels to a level that is acceptable.

### 6.5 Planned Activities (Routine and Non-routine)

#### 6.5.1 Physical Presence: Interference with or Displacement of Third Party Vessels

Context													
Project Vessels - Section 3.6			Socio-economic Environment – Section 4.10				Consultation - Section 5						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Interference with/exclusion of Interaction with third party vessels						X	A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 1
Description of Source of Impact													
<p>To conduct the PGGAP, at least two project vessels will be present in the Operational Areas. The geophysical surveys are expected to take approximately 40 days to complete and the geotechnical surveys approximately 80 days to complete, this may occur as a single campaign or could be split over a number of campaigns (as defined in Section 3.5).</p> <p>Vessels do not plan to anchor within the Operational Areas during activities and instead maintain positioning using DP. The physical presence and movement of project vessels within the Operational Areas has the potential to displace other marine users. All vessels will display navigational lighting and external lighting on a 24-hour basis, as required for safe operations.</p> <p>No support vessels are required for survey activities and no permanent survey equipment is planned to be left on the seabed following completion of the PGGAP. Geophysical survey equipment is towed at a distance of approximately 3x</p>													

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the water depth from the stern and within the 500 m exclusion zone of the vessel. Geotechnical equipment is deployed near vertical and is therefore, in close proximity to the working vessel.

There is the potential for the project vessels and associated survey equipment to temporarily displace third party vessels i.e. commercial fishing and shipping vessels, including vessels associated with oil and gas activities and recreational fishing vessels, from within the area where the vessel is directly operating.

### **Impact Assessment**

#### **Environmental Value(s) Potentially Impacted**

##### **Displacement to Commercial Fishing**

A number of Commonwealth and State managed fisheries occur in the region (Section 4.10.1). Potential impacts to commercial fishers depend on the use of the area by fishers, in addition to the temporal and spatial extent of the presence of vessels and facilities/infrastructure. Commercial fishing vessels in the vicinity of the Operational Areas are most likely to be licenced under the Pilbara Demersal Scalefish Fishery and the Mackerel Managed Fishery and may employ several gear types (including trap, trawl and line).

The presence of vessels in the Operational Areas would likely be of short duration, potentially resulting in a minor interference (i.e. navigational hazard) and localised displacement/avoidance by commercial fishing vessels within the immediate vicinity of the project vessels. It is also noted that there was no direct response from commercial fisheries during the consultation period, so the potential impacts of survey activities on commercial fisheries is considered minor and temporary.

No permanent infrastructure is intended to be installed or remain in-situ as part of the PGGAP. Therefore, there is no ongoing entanglement or equipment damage risk to bottom trawl fisheries.

##### **Displacement of Recreational Fishing and Tourism**

Tourism and recreation activity in the Operational Areas is expected to be infrequent, with recreational and charter fishing from vessels visiting the Montebello Islands Marine Park the only tourism and recreation activities identified as potentially occurring in the Operational Areas. Operational Area A overlap with a small section of the Montebello Islands Marine Park Multiple Use Zone IV. It is noted that some recreational fishing may occur at Wilcox Shoal and Rankin Bank, which lies in close proximity to the Operational Areas (overlapping Operational Area A) and within the Glomar Shoal KEF, which overlaps the north west area of Operational Area C. Any recreational and charter fishing from vessels is largely undertaken using lines. Consultation outcomes did not indicate any recreational fishing occurs within the Operational Areas (Section 5). Additionally, no concerns were raised by tourism operators during consultation. As such, impacts to recreational and charter fishing are expected to be localised and of no lasting effect.

##### **Displacement to Commercial Shipping**

Significant commercial shipping occurs in the region, with commercial shipping traffic comprising vessels such as:

Bulk carriers (e.g. mineral ore, salt etc.) from Port Hedland, Cape Preston and Dampier;

Offtake tankers;

Support vessels for offshore oil and gas activities; and

LNG carriers from Dampier, Barrow Island and Ashburton North.

The presence of project vessels could potentially cause temporary disruption to commercial shipping. To reduce the likelihood of interactions between commercial shipping vessels and project vessels, AMSA have introduced a series of shipping fairways within which commercial shipping vessels are advised to navigate. The fairways are not mandatory, however, AMSA strongly recommends commercial shipping vessels remain within the fairway when transiting the region. The use of shipping fairways is considered to be good seafaring practice, with AUSREP data from AMSA indicating cargo ships and tankers routinely navigate within the established fairways.

The fairway intended to direct north-/south-bound vessel traffic from Barrow Island and the southern Montebello Islands overlaps Operational Area A (Figure 4-15). Therefore there is slightly higher change of interference between the PGGAP and commercial shipping in this area. However, any impact would be limited to the duration of the survey activities and temporary in nature.

No concerns from AMSA regarding the activity were raised during the consultation period.

##### **Oil and Gas**

A number of oil and gas platforms occur in the region (see Table 4-25). Operational Area B overlaps with the North Rankin Complex and Operational Area C overlaps with the Angel Platform. The nearest facility not operated by Woodside, is the Chevron-operated Wheatstone platform, which lies approximately 6 km west of Operational Area A. Given the distance between the Operational Area and PGGAP undertaken by other operators, no impacts to other operators will occur as a result of the physical presence of the vessels.

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Vessels to adhere to the navigation safety requirements including the Navigation Act 2012 and any subsequent Marine Orders	F: Yes CS: Minimal cost. Standard practice.	The Navigation Act regulates ship related activities and invokes certain requirements of MARPOL. Vessels (relevant to class) will adhere to requirements.	Benefits outweigh cost/sacrifice. Control is also Standard	Yes <b>C 1.1</b>
<b>Good Practice</b>				
Australian Hydrographic Office (AHO) will be notified of activities and movements no less than four working weeks prior to commencement of the PGGAP,	F: Yes. CS: Minimal cost. Standard practice.	Notifying AHO and DoT will enable them to issue notice to mariners, thereby reducing the likelihood of interacting with other marine users.	Benefits outweigh cost/sacrifice.	Yes <b>C 1.2</b>
Notify AMSA Joint Rescue Coordination Centre (JRCC) of activities and movements.	F: Yes. CS: Minimal cost. Standard practice.	Communicating the PGGAP to other marine users ensures they are informed and aware should emergency response be required.	Benefits outweigh cost/sacrifice.	Yes <b>C 1.3</b>
Notify relevant persons on activities prior to the commencement of each survey.	F: Yes. CS: Minimal cost. Standard practice.	Communicating the PGGAP to other marine users ensures they are informed and aware, thereby reducing the likelihood of interference with other marine users.	Benefits outweigh cost/sacrifice. Control is also Standard Practice.	Yes <b>C 1.4</b>
A support vessel to be on standby during survey activities to communicate with third party vessels.	F: Yes. CS: Additional costs associated with hiring another vessel and increased risk of vessel collision with more vessels in the Operational Area.	Given the legislative controls in place and the duration of the activity, using a support vessel will provide only a small reduction in likelihood of a collision with a third party vessel.	Grossly disproportionate.	No
<b>Professional Judgement – Eliminate</b>				
Do not use project vessels during shipping, commercial fishing or oil and gas activities.	F: No. Shipping occurs all year and cannot be avoided. Simultaneous operations (SIMOPS) with fishing seasons cannot be eliminated,	Not considered, control not feasible.	Not considered, control not feasible.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	as exact timings for all activities are not confirmed. CS: Not considered, control not feasible.			
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential impacts associated with the physical presence of project vessels on other users such as commercial fisheries, recreational fishing and shipping. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<b>Acceptability Statement:</b>
<p>The impact assessment has determined that, given the adopted controls, physical presence of the project vessels may result in a negligible impact that is unlikely to result in a potential impact greater than isolated and short-term impacts to commercial fishing, recreational fishing and shipping. Further opportunities to reduce the impacts have been investigated above. The adopted controls are considered good practice/industry best practice and meet the requirements of Australian Marine Orders, and expectations of AMSA, AHO and DoT provided in consultation with relevant persons.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts to be managed to a level that is broadly acceptable.</p>

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 1</b> Undertake the PGGAP in a manner that does not interfere with other	<b>C1.1</b> Vessels to adhere to the navigation safety requirements and any	<b>PS 1.1</b> Survey vessels compliant with Navigation Act, Marine Order 21 (Safety	<b>MC 1.1.1</b> Marine Assurance inspection records demonstrate compliance with standard maritime safety

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
marine users to a greater extent than is necessary.	subsequent Marine Orders: <ul style="list-style-type: none"> <li>• Marine Order 21 (Safety of Navigation and emergency procedures) 2016</li> <li>• Marine Order 27 (Safety of navigation and radio equipment 2016</li> <li>• Marine Order 30 (Prevention of collisions) 20016</li> </ul>	of navigation), Marine order 27 (emergency procedures) and Marine Order 30 (Prevention of collisions)	procedures (Marine Orders 21, 27 and 30).
	<b>C 1.2</b> Australian Hydrographic Office (AHO) will be notified of activities and movements no less than four working weeks prior to commencement of the PGGAP.	<b>PS 1.2</b> Notification to AHO of activities and movements to allow generation of navigation warnings (i.e. Maritime Safety Information Notifications (MSIN) and Notice to Mariners (NTM) [including AUSCOAST warnings]) where relevant	<b>MC 1.2.1</b> Consultation records demonstrate AHO has been notified within required timeframes, before the activity commences.
	<b>C 1.3</b> Notify AMSA JRCC of activities and movements.	<b>PS 1.3</b> AMSA’s JRCC is notified of the activity 24–48 hours before operations start for awareness should emergency response be required. AMSA’s JRCC will require the survey vessel’s details (including name, callsign and Maritime Mobile Service Identity (MMSI)), satellite communications details (including INMARSAT-C and satellite telephone), area of operation, and needs to be advised when operations start and end.	<b>MC 1.3.1</b> Consultation records demonstrate AMSA’s JRCC has been notified within required timeframes before the activity starts.
	<b>C 1.4</b> Notify relevant government departments, fishing industry representative bodies and licence holders of activities 10	<b>PS 1.4</b> Notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery licence holders 10 days before activity commences, and	<b>MC 1.4.1</b> Consultation records demonstrate that relevant persons have been notified prior to commencement and following completion of activities.

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	days prior to the commencement and following completion of activities.	following completion of activities.	

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### 6.5.2 Physical Presence: Disturbance to Seabed from Geotechnical and Geophysical Surveys

Context													
Project Vessels - <b>Section 3.6</b> Geotechnical Survey Activities - <b>Section - 3.7.2</b>	Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>					Consultation - <b>Section 5</b>							
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Disturbance to benthic habitat as a result of geotechnical surveys	X			X			A	E	-	-	GP PC	Broadly Acceptable	EPO 2

**Description of Source of Impact**

**Geotechnical Surveys**

The geotechnical surveys will be performed using standard industry equipment (**Section 3.7.2**) and will consist of in situ testing and the recovery of soil and rock samples by deploying the geotechnical equipment from the project vessels to the seabed at locations within the Operational Areas to ground truth the geophysical data and provide geotechnical data for engineering design.

The geotechnical investigation may involve the following seabed-disturbing activities:

*Penetration testing:* The PGGAP includes a number of Cone Penetrometer Tests (PCPTs) across the Operational Areas. Each PCPT will create a hole on the seabed between 3 and 35 m deep with a diameter of up to 250 mm. The number of PCPTs that will be carried out during the PGGAP will depend on conditions during the PGGAP and results of PCPT as they occur. However, for the purpose of this EP the impact assessment assumes approximately 90 PCPTs could occur. Once PCPTs are complete all equipment is removed from the seabed and the resulting hole will infill naturally overtime.

*Cored boreholes:* Cored boreholes of up to 35 m deep are planned to be taken across the Operational Areas. These will either be drilled from the surface on a vessel or drilling/testing equipment involving a remotely operated subsea rig lowered to the seabed from the vessel. The borehole will be advanced by either push sampling at intervals or PCPT testings at intervals, followed by drilling using a bit approximately 125 mm in diameter. The remaining hole in the seabed would infill naturally with sediment over time. The number of boreholes made during the PGGAP may change depending on conditions during the PGGAP. For the purpose of this EP the impact assessment assumes approximately 20 boreholes.

*Piston core sampling:* Piston gravity core or vibro core sampling may occur during the PGGAP creating holes with depths of between 1 m – 6 m below the mudline. When the depth of sample refusal is reached, all equipment is withdrawn from the seabed. A small hole will remain in the seabed, approximately 115 mm in diameter, which will infill naturally with sediment over time. The number of piston cores taken during the PGGAP may change depending on conditions during the PGGAP. For the purpose of this EP, the impact assessment assumes approximately 60 piston cores will be executed across all Operational Areas.

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**Box Core sampling:** Box core sampling will occur during the PGGAP across all Operational Areas. All box core samples will result in a cube of sediment being removed from the seabed. The possible box core sample equipment is capable of recovering is approximately 0.125m<sup>3</sup> (0.5 m x 0.5 m x 0.5 m). A self-releasing trigger mechanism, initiated once the frame reaches the seabed, allows the box corer to penetrate into the seabed. Penetration is limited by a stopper to 0.5 m depth. The number of box cores taken may change depending on conditions during the PGGAP. For the purpose of this EP, the impact assessment assumes approximately 60 box cores will be executed in total across all the Operational Areas.

Section 3.7.2 provides further details on the geotechnical equipment associated with the survey and the potential seabed disturbance associated with it. At the end of the surveys all equipment will be removed from the seabed and no infrastructure or equipment will remain in the Operational Areas.

**Drill cuttings**

The geotechnical seabed coring may result in the indirect discharge of a small quantity of drill cuttings and fluid at the seafloor. Sampling boreholes drilled to recover soil and rock samples generate minimal drill cuttings as the objective is to recover a continuous sample profile of the depth of the borehole. Any drill cuttings will remain on the seabed immediately adjacent to the borehole site. The cuttings are pieces of material being drilled and likely to be benign calcareous sediment. Some of the discharged cuttings (lighter particles) will be temporarily suspended in the water column (close to seafloor) before settling to the seafloor within the immediate vicinity of the drilling location. The environmental impact associated with the indirect discharge of cuttings from the geotechnical seabed coring activities would be negligible and temporary lasting only minutes after the seabed coring operations are complete. Drilling fluid will consist primarily of seawater, and may have small quantities of additives. These additives are considered to be very low toxicity (as assessed through Woodside's Chemical Selection and Assessment Environment Guideline) and are expected to dilute rapidly upon discharge; as such no toxic effect to biota are expected to occur.

**Placement of Equipment on the Seafloor**

Placing the geotechnical equipment on the seafloor will result in minor localised physical disturbance to the seafloor beneath the equipment. These temporary footprints will return to natural state from natural sediment movements.

Discharge of drilling fluids is discussed further in Section 6.5.7

**Impact Assessment**

**Environmental Value(s) Potentially Impacted**

Geotechnical survey activities are likely to result in localised and temporary physical modification and disturbance to a small area of the seabed.

**Benthic Habitat**

The benthic habitat within the Operational Areas is predominantly soft sediment with sparsely associated epifauna which is broadly represented throughout the NWS Province and wider NWS (Section 4.5). Benthic habitats of the soft sediment seabed are characterised by burrowing infauna such as polychaetes and worms, with biota such as sessile filter feeders occurring on areas of hard substrate. The infauna communities are likely to be representative of the NWS province which is described as being of low abundance and dominated by polychaetes and crustaceans (RPS Environment and Planning 2012).

Operational Area A overlaps a small area of Wilcox Shoal (ranging from ~30 m below surface waters to ~80 m at seabed) it is highly likely the upper reaches of the shoal support a high cover of benthic organisms comprising mixed hard and soft corals (30–40 m depth range), transitioning to a deeper water benthic community comprising soft corals and mixed biota (sponges, other sessile invertebrate biota). No survey is planned to occur at Wilcox Shoal and therefore there will be no direct impact to the seabed in this location. Survey activities around Wilcox Shoal are expected to create very localised impacts which are unlikely to extend to Wilcox Shoal.

Subtidal soft sediments support a patchy abundance of various infauna (including polychaete worms, molluscs, and crustaceans) and epifauna (including crabs, sea urchins, snails, sea stars, demersal fish, sponges, sea whips and sea squirts) which are widespread and well represented and in the context of the contiguous extent of habitats across the region. They are considered to be of relatively low environmental sensitivity (Section 4.4).

Impacts from geotechnical survey activities are expected to be confined to sediment burrowing infauna, surface epifauna invertebrates and potentially sessile filter feeders inhabiting the seabed directly around the survey activities (Gates and Jones, 2012; Hughes *et al.*, 2010). Placing equipment on the seafloor may relocate small amounts of sediment, with slight and short-term impacts to biota, detailed above, due to elevated turbidity and

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the clogging of respiratory and feeding parts of filter feeding organisms. However, elevated turbidity would only be expected to be temporary, and is therefore not expected to have a lasting effect on environment receptors.

**Key Ecological Features (KEFS)**

The Operational Areas overlap with the Ancient Coastline at 125 m depth contour KEF. Impacts to benthic marine fauna as a result of geotechnical surveying are expected to be highly localised to surface area of the borehole, drill cuttings and the footprint of the geotechnical equipment, which is a relatively small area compared to the regional extent of the ancient coastline KEF, extending from Exmouth to the Dampier Peninsula and the Glomar Shoals KEF (noting the KEF encompasses a wider area than the shoal feature itself). As such, this habitat is well represented on a regional scale.

Benthic habitat surveys in the region (including within the Ancient Coastline at 125 m depth contour KEF) indicate that benthic habitats within the KEF are characterised by sand interspersed with areas of rubble and outcroppings of limestone pavement (AIMS 2014a, RPS 2011). Such habitats are widely distributed in the NWS Province. As noted in Section 9, of the Master Existing Environment, the geomorphic feature the KEF is associated with is represented worldwide and represents the coastline during a previous glacial period. Therefore, potential impacts to this regional-scale KEF are expected to be short term and localised.

A small section of Operational Area C overlaps the Glomar Shoal KEF. Glomar Shoal is a shallow sedimentary bank comprised of coarser biogenic material than the surrounding seabed. The shoal is 26 to 70 m below the sea surface (Falkner et al. 2009). The KEF encompasses a much wider area than the shoal feature itself. Impacts to benthic marine fauna that may be present on this feature as a result of geotechnical surveying are expected to be highly localised to surface area of the borehole, drill cuttings and the footprint of the geotechnical equipment, which is a relatively small area.

**Cumulative impacts**

Given the small area of seabed potentially impacted by the survey activities, the cumulative area potentially disturbed is considered negligible in the context of the wider distribution of the habitats present.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>24</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
No additional controls were identified.				
<b>Good Practice</b>				
Monitor the seabed environment before and after the PGGAP to assess any impacts to the seabed.	F: Yes. CS: Significant. Monitoring of the seabed would have significant additional costs to obtain and analyse data with the spatial resolution to accurately assess changes to the seabed habitat.	Environmental monitoring would not change how the activity is conducted; therefore, no change in consequence would occur.	Based on the nature of the activity (i.e. predictable impacts over a small area) and relatively low sensitivity of the area, application of an environmental monitoring control is considered grossly disproportionate. Monitoring will not reduce the consequence or impacts to the	No

<sup>24</sup> Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>24</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
			seabed, and the cost associated with the level of monitoring required to accurately assess any impacts greatly outweighs the benefits gained.  In addition the presence of additional vessels incur additional impacts and risks to the marine environment as described in other sections.	
No routine anchoring will occur during the PGGAP.	F: Yes CS: Minimal cost. Survey vessels undertaking these activities typically do not anchor.	By minimising anchoring the potential impacts to seabed is reduced.	Benefit outweighs sacrifice	Yes <b>C2.1</b>
Implement Woodside's Chemical Selection and Assessment Environment Guideline, or equivalent	F: Yes. CS: Minimal cost. Standard practice. Where Gold/Silver/E/D OCNS rating (and no OCNS substitution or product warning), chemicals are selected – no further control required; and If chemicals with a different OCNS rating, sub warning or non-OCNS rated chemicals are required chemicals will be assessed in accordance with the guideline prior to use.	Selection and assessment of chemicals in accordance with the Woodside process, reduces environmental impacts associated with planned chemical discharge.	Benefits outweigh sacrifice	Yes <b>C2.2</b>
Do not use geotechnical survey equipment close to or on the seabed.	F: No. The deployment of equipment to the seabed is required to meet the objectives of the surveys. CS: Not assessed, control not feasible.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
Monitor inventory deployed to the field and track removal of	F: Yes. CS: Minimal cost. Standard practice.	Removing equipment from seabed reduces duration of impact	Benefits outweigh costs/sacrifice	Yes <b>C2.3</b>

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>24</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
equipment during activity.				
Prelaid moorings to reduce benthic impact due to reliability	F: Installation of moorings would increase the proposed seabed disturbance as multiple locations would require a mooring. Vessels will be on DP.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
No seabed disturbance on shoals within the Operational Areas	F: yes CS: minimal cost	Ensures shallow shoal features are not impacted by the PGGAP	Benefits outweigh costs/sacrifice	Yes <b>C2.4</b>
<b>Professional Judgement – Eliminate</b>				
No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the potential impacts associated with seabed disturbance from geophysical and geotechnical survey activities to be ALARP. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<p><b>Acceptability Statement:</b></p> <p>The impact assessment has determined that, in its current state, disturbance to the seabed represents a potential impact no greater than a slight and short term effect on habitat (but not affecting ecosystems function). Further opportunities to reduce the impacts have been investigated above. The potential impacts are consistent with industry best practice and are considered broadly acceptable in their current state.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts to be managed to a level that is broadly acceptable.</p>

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 2</b> No impact to benthic habitats greater than a consequence level of E inside the Operational Area during the Petroleum Activities Program <sup>25</sup>	<b>C2.1</b> No routine anchoring will occur during the PGGAP.	<b>PS 2.1</b> No anchoring in the Operational Areas.	<b>MC 2.1.1</b> Scope of Work specifically states that anchoring is not allowed in the operational areas (apart from emergency situations). Vessel bridge daily records show no anchoring occurred in the Operational Areas.
	<b>C2.2</b> Compliance with Woodside's Chemical Selection and Assessment Environment Guideline, or equivalent	<b>PS 2.2</b> Compliance with Woodside's Chemical Selection and Assessment Environment Guideline, or equivalent	<b>MC 2.2.1</b> Documentation of chemical selection process indicates conformance to Woodside's Chemical Selection and Assessment Environment Guideline, or equivalent
	<b>C2.3</b> Monitor inventory deployed to the field and track removal of equipment during activity.	<b>PS 2.3</b> Location of equipment deployed to seabed will be tracked and removed from the seabed.	<b>MC 2.3.1</b> Field reports for activities that include equipment deployed to seabed will specify the deployment location and the complete removal of the equipment.
	<b>C2.4</b> No seabed disturbance will occur on shoals within the Operational Areas	<b>PS 2.4</b> No seabed disturbance on shoals within the Operational Areas	<b>MC 2.4.1</b> Survey reports provide all sample and investigation locations and depths demonstrating no activities occurred at the shoals within the Operational Area.

<sup>25</sup> Defined as 'Slight, short term local impact (<1 year), on species, habitat but not affecting ecosystem function), physical or biological attributes'.

### 6.5.3 Routine Acoustic Emissions: Generation of Noise from Project Vessels

Context													
Project Vessels - Section 3.6		Protected Species - Section 4.6				Consultation - Section 5							
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Generation of acoustic signals from vessels during normal operations					X		A	F	-	-	GP PJ	Broadly Acceptable	EPO 3
Generation of acoustic signals from dynamic positioning systems					X		A	F	-	-	GP PJ		
Description of Source of Impact													
<b>Vessels and Operation of Dynamic Positioning Systems</b>													
<p>Project vessels will generate noise both in the air and underwater, due to operating thrusters, engines and moving propellers. These noises will contribute to and can exceed ambient noise levels, which range from around 90 dB re 1 µPa (root mean square sound pressure level (rms SPL)) under very calm, low wind conditions, to 120 dB re 1 µPa (rms SPL) under windy conditions (McCauley, 2005).</p> <p>Thruster noise (from cavitation caused by propellers) is typically the most significant noise source for vessels holding station, with other noise sources typically relatively minor (McCauley, 1998).</p> <p>Thruster noise is typically high intensity and broadband in nature. Project vessels will maintain position using main engines and / or thrusters (including use dynamic positioning systems) for short durations while the vessel is maintaining station prior to and during geotechnical surveying. There is no applicable sound data available for a typical DP vessel; however, based upon past research, frequencies and sound levels are expected to be less than those from DP vessels. Near and far field underwater noise measurements were taken in 2011 for the MAERSK Discoverer Dynamic Positioning (DP) drill rig used on the North West Shelf. The rig DP system (similar to the system proposed for the survey vessels) emitted tonal signals between 200 Hz and 1.2 kHz, which is within the auditory band width of whales. The measured source level was between 176 and 186 dB re 1µPa @ 1 m.</p> <p>Vessels may use DP while the vessel is maintaining position. McCauley (1998) measured underwater broadband noise equivalent to about 182 dB re 1 µPa at 1 m (rms SPL) from a support vessel holding station in the Timor Sea; it is expected that similar noise levels will be generated by vessel used for this PGGAP.</p>													

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The physical presence of, and the underwater noise generated by project vessel operations has the potential to cause temporary and localised disturbance to marine fauna (e.g. displace or attract resulting in behavioural changes) in response to received continuous noise levels of 120 dB re1  $\mu$ Pa (root square mean sound pressure level (RMS SPL)) (Southall *et al.*, 2007).

**Impact Assessment**

**Environmental Value(s) Potentially Impacted**

The Operational Areas are located in water depths between 20 - 190 m. The fauna associated with these areas are predominantly pelagic species of fish, with migratory species such as turtles, whale sharks and cetaceans potentially present in the area seasonally. Noise interference is a key threat to a number of migratory and threatened cetaceans and marine turtles identified as occurring within the Operational Areas.

Elevated underwater noise has the potential to affect marine fauna, including cetaceans, fish, sharks and rays in three main ways (Richardson *et al.*, 1995; Simmonds *et al.*, 2004):

- by causing direct physical effects on hearing or other organs. Hearing loss may be temporary (temporary threshold shift (TTS); referred to as auditory fatigue), or permanent threshold shift (PTS; injury);
- by masking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey); and
- through disturbance leading to behavioural changes or displacement from important areas (e.g. BIAs). The occurrence and intensity of disturbance is highly variable and depends on a range of factors relating to the animal and situation.

Koessler, M.W and McPherson (2020) undertook sound transmission loss modelling for an Offshore Support Vessel (source level of 183 dB re 1  $\mu$ Pa ) approximately 220 km east of Operational Area C in water depths of 90 m. The noise source levels applied in the modelling are similar to those of the Project Vessels and were modelled in similar water depths. Therefore, the outputs (Table 6-2) of the modelling have been applied in this assessment.

**Table 6-2: Maximum (Rmax) horizontal distances (in km) for an Offshore Support Vessel**

SPL (dB re 1 $\mu$ Pa)	R <sub>max</sub> (km)
180	-
170	-
160	-
150	0.06
140	0.34
130	1.25
120	4.57
110	11.9

Based on the modelling outputs of Koessler and McPherson (2020) (Table 6-2), potential impacts may include:

- cetaceans: potential behavioural disturbance out to about 5 km
- turtles: potential masking and behavioural disturbance at intermediate and far ranges
- fish: potential masking and behavioural disturbance at near and intermediate ranges; likelihood of TTS is considered not credible, given fish would move away from the source – demersal fish are not expected to be exposed to underwater noise above impact thresholds.

**Sound Propagation**

Increasing the distance from the noise source results in the level of noise reducing, due primarily to the spreading of the sound energy with distance. The way that the noise spreads (geometrical divergence) will depend upon several factors such as water column depth, pressure, temperature gradients, and salinity, as well as surface and bottom conditions.

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### Cetaceans

Marine mammals and especially cetaceans rely on sound for important life functions including individual recognition, socialising, detecting predators and prey, navigation and reproduction (Weilgart, 2007; Erbe et al., 2015; Erbe et al., 2018). Underwater noise can affect marine mammals in various ways including interfering with communication (masking), behavioural changes, a shift in the hearing threshold (PTS and TTS), physical damage and stress (NRC, 2003; Erbe, 2012; Rolland et al., 2012).

The thresholds that could result in a behavioural response, temporary threshold shift (TTS) and permanent threshold shift (PTS) for cetaceans as a result of continuous noise sources are presented in Table 6-3. These thresholds have been adopted by the United States National Oceanic and Atmospheric Administration (NOAA) (National Marine Fisheries Service [NMFS], 2014, 2018; Southall et al., 2019; NOAA 2018). The adopted thresholds are based on best data available and published in peer-reviewed literature and represent conservative internationally accepted and applied impact evaluation thresholds for continuous (non-impulsive sound sources). The maximum ( $R_{max}$ ) horizontal distances (km) from vessels to modelled marine mammal thresholds is detailed in (Table 6-4; Koessler, M.W and McPherson, 2020).

**Table 6-3: Thresholds for PTS, TTS and behavioural response onset for low-frequency (LF), high-frequency (HF) and very high frequency (VHF) cetaceans for continuous noise.**

Hearing group and generalised hearing range	Southall et al. (2019)		NOAA (2019)
	PTS onset thresholds: SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> .s)	TTS onset thresholds: SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> .s)	Behavioural response (dB re 1 µPa)
LF cetaceans	199	179	120
HF cetaceans	198	178	120
VHF cetaceans	173	153	120

Source: NMFS (2014, 2018; Southall, 2019; NOAA, 2018).

**Table 6-4: Maximum ( $R_{max}$ ) horizontal distances (km) from vessels to modelled marine mammal thresholds from Koessler and McPherson (2020).**

Hearing Group	Distance $R_{max}$ (km)	
	Threshold for PTS, SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> s)	Threshold for TTS, SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> s)
Low-frequency cetaceans	0.03	0.79
High-frequency cetaceans	-	0.03
Very-high-frequency cetaceans	0.05	0.93

Project vessels will contribute noise into the marine environment; however, they will only use DP for short periods when undertaking actual geotechnical investigations. Project vessels transiting on main engines will produce lower levels of underwater noise that is below the injury threshold for sensitive marine fauna (e.g. cetaceans), thereby limiting the potential for any impacts.

It is not expected that individual LF and HF cetaceans passing through the Operational Areas during the activity would experience PTS or TTS, given individuals would need to remain in close proximity (<1km) of the activity for a period of 24 hours Table 6-4. This is based on the swimming speed of pygmy blue whales during migration tracked in Thums et al (2022a). The slowest individual of that study travelled at approximately 0.5 m/s or ~2 km/hour (Thums et al. (2022a)). Similarly, it is considered highly unlikely that any VHF cetaceans would experience PTS or TTS.

There are no known critical habitats (i.e. feeding, breeding, calving or constricted migratory pathways) for EPBC listed cetaceans present within the Operational Areas. It is possible that the activity will overlap with the migration seasons for humpback and pygmy blue whales (the Operational Areas overlap the pygmy blue whale distribution zone). There is potential for these species to be exposed to underwater noise levels that may alter their behaviour when they are in the region during seasonal migrations. It is reasonable to expect that cetaceans may demonstrate avoidance or attraction behaviour to the noise generated by the vessels, however predicted noise levels are not considered to be ecologically significant at a population level.

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Other cetacean species, including high frequency odontocetes, may also occur in the Operational Areas, although the lack of important habitats for these species suggests only low numbers are expected. Given the short duration of the survey activities and low level of behavioural response expected, impacts to individuals or populations are not expected.

### Turtles

There is a paucity of data regarding responses of marine turtles to underwater noise. However, turtles have been shown to respond to low frequency sound, with indications that they have the highest hearing sensitivity in the frequency range 100–700 Hz (Bartol and Musick, 2003). Lenhardt (1994) observed marine turtles avoiding low-frequency sound. Popper et al. (2014) assessed thresholds for marine turtles and found qualitative results that TTS was only moderate for near field exposure, and low for both intermediate and far field exposure. McCauley et al. (2000) noted that sea turtles exhibit increased swimming activity at 166 dB re 1 µPa. No numerical thresholds have been developed for impacts of continuous sources (e.g., vessel noise) on marine turtles. The thresholds listed Table 6-5 are considered appropriate for the assessment of impacts from continuous acoustic discharges to marine turtles from the PGGAP. No numerical thresholds have been developed for behavioural impacts of continuous sources (e.g. vessel noise) on marine turtles. A Popper et al. (2014) review assessed thresholds for marine turtles and found qualitative results that the risk of behavioural disturbance was high for near field exposure, moderate for intermediate exposure and low for far field exposure (Popper et al., 2014).

**Table 6-5: Thresholds for PTS, TTS and behavioural response onset in marine turtles for continuous noise**

Receptor	PTS onset thresholds: SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> .s)	TTS onset thresholds: SEL <sub>24h</sub> (dB re 1 µPa <sup>2</sup> .s)	Masking	Behaviour
Marine turtles	220	200	(N) High (I) High (F) Moderate	(N) High (I) Moderate (F) Low

Source: PTS and TTS thresholds (Finneran et al., 2017)

Note: The sound units provided in the table above include: relative risk (high, medium and low) is given for marine turtles at three distances from the source defined in relative terms as near (N – tens of metres), intermediate (I – hundreds of metres) and far (F – thousands of metres) (after Popper et al. 2014).

The Recovery Plan for Marine Turtles (Commonwealth of Australia, 2017) notes there is limited information available on the impact of noise on marine turtles and that the impact of noise on turtle stocks may vary depending on whether exposure is short (acute) or long-term (chronic). However, given the thresholds outlined in Table 6-5, it is reasonable to expect that marine turtles may demonstrate avoidance or attraction behaviour to the noise generated by the PGGAP.

Turtles may occur in the Operational Areas since the flatback turtle internesting buffer BIA and flatback turtle habitat critical buffer zone overlap both Operational Area A. Turtles may exhibit behavioural responses when exposed to underwater noise, such as diving. Such disturbances are expected to be localised (given the expected transmission loss described above) and, since the vessel will be continually moving, and activities of short duration. Given the distance of the Operational Areas to the nearest shoreline (and potential nesting beaches), impacts to nesting females are not expected. Disturbance to mating or internesting behaviour may occur, but given the temporary nature of the disturbance, is unlikely to affect individual breeding success or impact marine turtles at the population level.

### Fish (including sharks and rays)

Fish perceive sound through the ears and the lateral line, which are sensitive to vibration. Some species of teleost or bony fish (e.g. herring) have a structure linking the gas-filled swim bladder and ear, and these species usually have increased hearing sensitivity. These species are considered to be more sensitive to anthropogenic underwater noise sources than species such as cod (*Gadus* sp.), which do not possess a structure linking the swim bladder and inner ear. Fish species that either do not have a swim bladder (e.g. elasmobranchs (sharks and rays) and scombrid fish (mackerel and tunas)) or have a much-reduced swim bladder (e.g. flat fish) tend to have a relatively low auditory sensitivity.

Considering these differences in fish physiology, Popper et al. (2014) developed sound exposure guidelines for fish; these are presented in Table 6-6 and are considered appropriate to assess continuous acoustic discharges to fish from the PGGAP.

**Table 6-6: Impact thresholds to fish, sharks and rays for continuous noise**

Receptor	Mortality and potential mortal injury	PTS	TTS	Masking	Behaviour
Fish: no swim bladder	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: swim bladder not involved in hearing	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: swim bladder involving hearing	(N) Low (I) Low (F) Low	170 dB rms SPL for 48-hours	158 dB rms SPL for 12-hours	(N) High (I) High (F) High	(N) High (I) Moderate (F) Low
Fish eggs and fish larvae	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) High (I) Moderate (F) Low	(N) Moderate (I) Moderate (F) Low

*Note: The sound units provided in the table above include relative risk (high, medium and low) is given for fish (all types) at three distances from the source defined in relative terms as near (N – tens of metres), intermediate (I – hundreds of metres) and far (F – thousands of metres) (after Popper et al. 2014).*

Cartilaginous fish (such as sharks and rays) lack a swim bladder and are considered less sensitive to sound than bony fish. Given the thresholds outlined in Table 6-6, it is reasonable to expect that fish, sharks and rays may demonstrate avoidance or attraction behaviour to the noise generated by the PGGAP. The Operational Areas overlap the whale shark foraging BIA. The hearing capabilities of the whale shark have not been studied, but it has been suggested that they are likely to be most responsive to low frequency sounds (Myberg 2001).

Potential impacts to fish (including whale sharks) are expected to be restricted to masking and behavioural disturbance. Fish may temporarily be displaced from the immediate vicinity of a noise source; however, they would be expected to behave normally once the noise emissions ceased.

It is expected that fish (including sharks and rays) may exhibit some behavioural responses to the noise generated by vessel activities of the PGGAP. However, the behavioural responses are expected to be restricted to the immediate area of vessel activities. No permanent changes in behaviour that could impact on long-term biological or ecological functioning of fish populations are expected.

**Cumulative Impacts**

Potential impacts to individuals are confined to behavioural responses localised around the vessel. A larger number of vessels may increase the area in which elevated noise levels could lead to a behavioural response. However, given the minor behavioural responses expected and the localised area of potential impact around each vessel, the presence of multiple vessels in the Operational Areas does not increase the consequence rating of this impact.

Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>26</sup>	Benefit in Impact/Risk Reduction	Proportionality	Control Adopted
<b>Legislation, Codes and Standards</b>				

<sup>26</sup> Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>26</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<p>EPBC Regulations 2000 - Part 8 Division 8.1 Interacting with cetaceans, including the following measures:</p> <p>Project vessels will not travel greater than 6 knots within 300 m of a cetacean or turtle (caution zone) and not approach closer than 100 m from a whale.</p> <p>Project vessels will not approach closer than 50 m for a dolphin or turtle and/or 100 m for a whale (with the exception of animals bow riding).</p> <p>If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots.</p> <p>Project vessels will not travel greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.</p>	<p>F: Yes</p> <p>CS: Minimal cost. Standard practice.</p>	<p>Implementation of controls for reduced vessel speed around cetaceans can potentially reduce the underwater noise footprint of a vessel and lower the likelihood of interaction above.</p>	<p>Controls based on legislative requirements – must be adopted.</p>	<p>Yes</p> <p>C 3.1</p>
<b>Good Practice</b>				
<p>Have a dedicated experienced and trained Marine Fauna Observer (MFO) onboard the survey vessel to undertake marine fauna observations.</p>	<p>F: Yes, however additional cost for dedicated and experienced MFO to be present during the survey.</p> <p>CS: Moderate, requires the provision of a dedicated and experienced MFO to</p>	<p>Use of an MFO would detect fauna in the area, however control provides limited benefit when managing impacts associated with vessel noise alone</p>	<p>Given limited benefit associated with the management of vessel noise impacts and costs associated with control implementation an experienced MFO is not considered necessary.</p>	<p>No</p>

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)26</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	undertake Marine Fauna Observations.			
<b>Professional Judgement – Eliminate</b>				
Eliminate generation of noise from the vessels including DP.	F: No. Generation of noise from these sources cannot be eliminated due to operating requirements. Note that vessels operating on DP may be a safety-critical requirement. CS: Inability to conduct the PGGAP. Loss of project.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Substitute</b>				
Vary the timing of the PGGAP to avoid migration and breeding periods.	F: No. Timing of survey activities is currently undetermined, and due to vessel availability and operational requirements, undertaking activities during migration seasons may not be able to be avoided. CS: Significant cost and schedule impacts due to delays in securing project vessel for specific timeframes.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
ALARP Statement: Based on the environmental risk assessment objectives and use of the relevant tools appropriate to the decision type (i.e. Decision Type A, Section 2.6.1). The potential impacts from acoustic emissions during geophysical and geotechnical survey activities is expected to be localised, temporary and minor. Efforts will be made to minimise unnecessary disturbance from acoustic emissions by undertaking the minimum required survey activities to achieve the program's objectives.				

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**Demonstration of Acceptability**

**Acceptability Statement:**

The impact assessment has determined that vessel noise disturbance will not result in a potential impact greater than localised impacts insignificant to marine fauna, with no lasting effect. Further opportunities to reduce the impacts have been investigated above. The potential impacts are considered broadly acceptable. Therefore, Woodside considers standard operations appropriate to manage the impacts of vessel noise emissions to a level that is broadly acceptable.

**EPOs, PS and MC**

<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<p><b>EPO 3</b> No impact to marine fauna from noise emissions greater than F<sup>27</sup>.</p>	<p><b>C 3.1</b> EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans, including the following measures<sup>27</sup>:</p> <ul style="list-style-type: none"> <li>• Project vessels will not deliberately approach greater than 6 knots within 300 m of a cetacean or turtle (caution zone) and not deliberately approach closer than 100 m from a whale.</li> <li>• Project vessels will not deliberately approach closer than 50 m for a dolphin or turtle and/or 100 m for a whale (with the exception of animals bow riding).</li> <li>• If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots.</li> <li>• Vessels will not deliberately</li> </ul>	<p><b>PS 3.1</b> Compliance with EPBC Regulations 2000 – Part 8 Division 8.1 (Regulation 8.05 and 8.06) Interacting with cetaceans</p>	<p><b>MC 3.1.1</b> Vessel bridge daily log demonstrates no breaches with EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans.</p>

<sup>27</sup> Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors.'

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	approach greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.		

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### 6.5.4 Routine Acoustic Emissions: Generation of Noise from Geophysical and Geotechnical Survey Equipment

Context													
Geophysical Survey Activities - <b>Section 3.7</b> Geotechnical Survey Activities - <b>Section 3.7.2</b>			Habitats and Biological Communities - <b>Section 4.5</b> Protected Species - <b>Section 4.6</b>				Consultation - <b>Section 5</b>						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Generation of acoustic signals from geophysical and geotechnical survey				X	X		A	E	-	-	GP P <sub>2</sub>	Broadly Acceptable	EPO 4
Description of Source of Impact													
<p><b>Geophysical Survey Activities</b></p> <p>Geophysical sources are used for bathymetric mapping and shallow sub-bottom profiling, penetrating to depths of about 60 m below the seabed. The geophysical surveys will use a range of sources (Table 3-3).</p> <p>Most commercial SBPs are small, low-powered, high-resolution and shallow-penetrating systems, producing electrical pulses across a range of frequencies (Salgado Kent et al., 2016; Jiménez-Arranz et al., 2017). The SBP instruments proposed for the survey produce pulses of sound between approximately 50 Hz and 30 kHz with source levels between approximately 192 and 220 dB re 1µPa (SPL) at 1 m.</p> <p>MBES and SSS are very high-frequency and high resolution systems, producing short micro-pulses of sound at frequencies in the tens or hundreds of kilohertz. The high-frequency pulses of sound produced by MBES are focused within multiple highly directional and narrow beams, which form a fan shape directed at the seabed (Salgado Kent et al., 2016; Jiménez-Arranz et al., 2017). SSS also produces sound in a focussed swath directed at the seabed. The pulses of sound produced by these instruments are of such high frequency that they rapidly attenuate outside of the beam (Zykov, 2013). Despite relatively high source levels, the high operating frequencies of most MBES and SSS places the dominant sound frequencies above the principal auditory range of most marine fauna species, although mid-frequency cetaceans that may occur in the PGGAP (e.g. dolphins) have the capability to hear some of the sound energy at the lower end of the operating frequency ranges (US National Marine Fisheries Service [NMFS] 2018).</p> <p>An Ultra Short Baseline (USBL) system may also be used during the survey for the purpose of accurate underwater positioning. USBL systems work by emitting short pulses of medium to high frequency sound (19 to 34 kHz) in short 'chirps'. Source levels are in the order of 184–202 dB re 1µPa (SPL) at 1 m. The operating frequency range is above the auditory range of low frequency cetaceans (peak hearing at 0.2-19 kHz; NMFS 2018), marine turtles and the</p>													

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majority of fish species (<1 kHz; Ladich 2000; Popper et al. 2014). Similar to MBES and SSS, dolphins have the capability to hear the sound produced from USBL.

#### **Geotechnical Survey Activities**

The key sound sources during geotechnical surveys include the penetration tests and sampling boreholes undertaken at the seabed. Sound levels associated with standard penetration testing and small-core drilling have been measured in waters off WA (Erbe & McPherson, 2017). The broadband (20 Hz – 24 kHz) source levels for penetration testing were 151 – 160 dB re 1 uPa<sup>2</sup>s SEL at 1 m (equivalent to approximately 160 – 170 dB re 1 µPa SPL at 1 m), with received levels reducing to approximately 141 to 146 dB re 1 µPa SPL within 20 m distance from the source (Erbe & McPherson, 2017). The broadband (30 Hz – 2 kHz) drilling source levels were 142 – 145 dB re 1 µPa SPL at 1 m (Erbe & McPherson, 2017). The reported levels are tens of decibels less than those produced during production or construction operations and below levels commonly considered in marine noise regulations (Erbe & McPherson, 2017).

Underwater sound produced by the geophysical and geotechnical survey instruments has the potential to affect marine fauna that may pass within close proximity to survey operations. The potential effects to habitats and ecosystems (i.e. benthic invertebrate communities, planktonic communities, KEFs), as well as indirect effects to commercial fisheries associated with the potential disturbance to fishes is also considered.

### **Impact Assessment**

#### **Environmental Value(s) Potentially Impacted**

##### **Receptors**

The Survey Operational Area is located in water depths of approximately 20-190 m (refer to Section 3.3). The fauna associated with this area will be predominantly pelagic species of fish, with migratory species such as cetaceans and marine turtles potentially occurring in the area seasonally (Section 4.6). Noise interference is a key threat to a number of migratory and threatened cetaceans and marine turtles identified as potentially occurring within the Operational Areas, including the pygmy blue whale. Relevant actions included in recovery plans for these species are outlined in Section 6.7.

The pygmy blue whale migration BIA does not overlap with the Operational Area, with Operational Area A approximately 22 km away, but individual pygmy blue whales may occasionally transit the areas during April to July and October to January during their seasonal migrations. A humpback whale migration BIA is located about 5 km south-southeast of Operational Area A, migrating whales may be present between about May and November. Occasional individuals may transit through the area.

A flatback turtle internesting buffer BIA overlaps with Operational Area A at the Montebello Islands. Green, loggerhead and hawksbill turtle internesting buffer BIAs at Montebello Island are about 8.5 km, 20.5 km and 11 km south of Operational Area A respectively. Given the majority of the water depths are deep and distance from shore (there are 2 shoals in Operational Area A, the Operational Area does not represent suitable foraging or internesting habitat. Satellite tracking of flatback turtle nesting populations (Barrow Island and mainland sites) indicates this species travels to the east of Barrow Island between nesting events, within WA mainland coastal waters less than 70 m deep (Chevron Australia Pty Ltd, 2015).

A whale shark foraging BIA overlaps with the Operational Areas (with peak numbers expected March to July). A wedge-tailed shearwater breeding BIA overlaps with the Operational Areas and wedge-tailed shearwaters will be present between August and April. Due to the lack of roosting or nesting habitat for wedge-tailed shearwaters in proximity to the Operational Area, only a low density is expected even during peak nesting periods.

Whilst the Ancient Coastline KEF may be associated with outcroppings of hard substrate, there is no known evidence of significant reefs associated with such outcroppings has been found in the Operational Area. However, three are some shoals present within Operational Area A where demersal fish is likely to be present.

##### **Potential Impact of Noise**

Geophysical and geotechnical survey techniques will generate impulsive sound sources.

Elevated underwater noise from impulsive sound sources have the potential to affect marine fauna, including cetaceans, marine turtles, fish, sharks and rays, in three main ways (Richardson et al., 1995; Simmonds et al., 2004):

- by causing direct physical effects on hearing or other organs. Hearing loss may be temporary (temporary threshold shift [TTS]; referred to as auditory fatigue), or permanent threshold shift (PTS; injury);
- by masking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey); and

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- through disturbance leading to behavioural changes or displacement from important areas (e.g. BIAs). The occurrence and intensity of disturbance is highly variable and depends on a range of factors relating to the animal and situation.

**Sound Propagation**

Increasing the distance from the noise source results in the level of noise reducing, due primarily to the spreading of the sound energy with distance. The way that the noise spreads (geometrical divergence) will depend upon several factors such as water column depth, pressure, temperature gradients, and salinity, as well as surface and bottom conditions.

**Cetaceans**

*Species Sensitivity and Thresholds*

Sound exposure thresholds and criteria for impulsive sound sources applicable to the types of cetaceans that may be present near the Operational Areas are summarised in Table 6-7 below.

A range of behavioural changes can occur in marine fauna in response to sound pressure levels. Onset of behavioural disturbance to cetaceans has been reported to occur in response to sound levels ranging from 120 to over 180 dB re 1 µPa SPL (Southall et al., 2007). This may include minor responses, such as a momentary pause in vocalisation or reorientation of an animal to the source of the sound, or stronger avoidance responses (Southall et al., 2007). The US NMFS propose a threshold of 160 dB re 1 µPa SPL for a potentially significant behavioural response to impulsive sound sources (NMFS, 2014).

Thresholds for potential hearing impairment, in terms of PTS or TTS are presented as dual metric criteria, the peak pressure (PK) from a single impulse or the sound exposure level (SEL) accumulated from multiple impulses over a period of 24 hours (SEL<sub>24h</sub>). The SEL<sub>24h</sub> thresholds are frequency weighted according to the auditory weighting categories of different types of cetaceans, including low frequency cetaceans (large baleen whales such as humpback and pygmy blue whales) and mid-frequency cetaceans (toothed whales and dolphins). The PK thresholds for a single impulse are not frequency weighted.

**Table 6-7: Exposure thresholds for impulsive sounds applicable to cetaceans**

Hearing group	NMFS (2014)	NMFS (2018)			
	Behaviour	PTS onset thresholds (received level)		TTS onset thresholds (received level)	
	SPL ( $L_p$ ; dB re 1 µPa)	Weighted SEL <sub>24h</sub> ( $L_{E,24h}$ ; dB re 1 µPa <sup>2</sup> ·s)	PK ( $L_{pk}$ ; dB re 1 µPa)	Weighted SEL <sub>24h</sub> ( $L_{E,24h}$ ; dB re 1 µPa <sup>2</sup> ·s)	PK ( $L_{pk}$ ; dB re 1 µPa)
Low-frequency cetaceans	160	183	219	168	213
Mid-frequency cetaceans		185	230	170	224

*Impact Assessment*

Acoustic modelling of sub-bottom profilers by Zykov (2013), MacGillivray et al. (2013) and McPherson and Wood (2017), indicates limited horizontal sound propagation outside of the main directional beams of sound. The modelling studies also indicate that PK and SEL<sub>24h</sub> thresholds for PTS are not exceeded. The potential for TTS resulting from single pulse PK pressure exposure is not predicted to occur, while the potential for TTS resulting from SEL<sub>24h</sub> exposures is limited to a few metres from the moving sound source (Zykov, 2013; McPherson and Wood 2017), which is not expected for mobile marine fauna as they are likely to move out of the area relatively quickly. Exceedance of the 160 dB re 1 µPa SPL behavioural response threshold is limited to within a few tens of metres in most instances, or up to a maximum of 150 m depending upon which instrument is used, water depth and the seabed sediment characteristics (Zykov, 2013; McPherson and Wood 2017).

The very high-frequency micro-pulses of sound produced by the MBES and SSS also rapidly attenuate outside of the beam (MacGillivray et al., 2013; Zykov, 2013). The high operating frequencies of these instruments also places the majority of sound frequencies above the auditory range of most marine fauna species. Dolphins and other mid-frequency cetaceans, which have peak hearing sensitivity up to 110 kHz, with potential for some limited hearing ability

up to approximately 160 kHz (NMFS 2018), may be able to detect a small amount of the sound energy from some MBES and SSS instruments in the lower operating frequency ranges (MacGillivray et al., 2013; Zykov, 2013). The propagation of the high frequency sound from MBES and SSS with similar source frequency characteristics as those proposed for the PGGAP has been undertaken by Zykov (2013) and MacGillivray et al. (2013). The modelling results indicate that the sound emissions outside of the main beams are below the threshold levels for potential injury, PTS or TTS. Sound levels that may result in behavioural effects are likely limited to within tens of metres, but potentially up to a few hundreds of metres from the sound source for mid-frequency cetaceans (Zykov, 2013; MacGillivray et al., 2013). USBL positioning equipment also produces high frequency sound, which may only be audible to dolphins and other mid-frequency cetaceans. The USBL has lower source levels than the other instruments proposed for the geophysical survey and is not expected to result in any injury or hearing impairment. Some localised behavioural effects may occur in close proximity to the USBL, but the extent of any effect is expected to be smaller than that of other survey instruments and there is not expected to be any lasting behavioural effects.

Sound emitted from the geotechnical activities at the seabed (penetration tests and sampling boreholes) may be at levels that result in very localised behavioural effects to animals that happen to be exposed within less than 10 m, but such effects will be temporary and the sound levels are well below those that may result in any injury or hearing impairment (Erbe & McPherson, 2017).

Based on the above assessment, the geophysical and geotechnical survey activities are expected to result in behavioural effects to cetaceans most likely within tens of meters, possibly up to hundreds of metres from the survey activities. Such localised effects and potential deviations are not expected to be significant given the transient nature of cetaceans or in the context of long distance migrations undertaken by pygmy blue whales or other migratory species that might be present. It is highly unlikely that TTS effects will occur as individual animals are unlikely to remain within range of the survey activities (i.e. within a few hundred metres of the passing geophysical survey vessel) for durations long enough for the relevant sound exposure threshold to be exceeded.

**Marine turtles**

*Species Sensitivity and Thresholds*

Sound exposure thresholds and criteria for impulsive sound applicable to marine turtles are summarised in Table 6-8 below.

McCauley et al. (2000) observed the behavioural response of caged green and loggerhead turtles to an approaching seismic airgun. For received levels above 166 dB re 1 µPa SPL, the turtles increased their swimming activity and above 175 dB re 1 µPa they began to behave erratically, which was interpreted as an agitated state. The 166 dB re 1 µPa SPL has been used as the threshold level for a behavioural disturbance response by the US NMFS (NSF, 2011) and is applied to this impact assessment. Finneran et al., (2017) presented thresholds for turtle PTS and TTS, considering both PK and frequency-weighted SEL, which have been applied in this study,

**Table 6-8: Exposure thresholds for impulsive sounds applicable to marine turtles**

Behaviour	Finneran et al. (2017)			
	PTS onset thresholds (received level)		TTS onset thresholds (received level)	
SPL ( $L_{pi}$ ; dB re 1 µPa)	Weighted SEL <sub>24h</sub> ( $L_{E,24h}$ ; dB re 1 µPa <sup>2</sup> .s)	PK ( $L_{pk}$ ; dB re 1 µPa)	Weighted SEL <sub>24h</sub> ( $L_{E,24h}$ ; dB re 1 µPa <sup>2</sup> .s)	PK ( $L_{pk}$ ; dB re 1 µPa)
160	204	232	189	226

*Impact Assessment*

Sound levels that are likely to be produced by various different SBP instruments are predicted to fall below the 166 dB re 1 µPa SPL threshold within a few metres or tens of metres (Zykov, 2013; McPherson and Wood 2017). The high-frequency sounds produced by the MBES, SSS and USBL are expected to be above the auditory range of marine turtles and so behavioural impacts are not expected to occur.

As with cetaceans, the sound produced during geotechnical activities may only result in very localised behavioural effects to animals that happen to be exposed within less than 10 m, but such effects are anticipated to be temporary and the sound levels are well below those that may result in any injury or hearing impairment.

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Operational Area A overlap the interesting buffer BIA of flatback turtles and flatback turtle habitat critical buffer zone nesting at the Montebello Islands (with peak nesting between December and January). However, recent studies have demonstrated that the Operational Area does not represent suitable habitat for flatback turtles during the interesting period (Whitlock et al., 2016) and turtles are not expected to be present in significant numbers. The localised and short-term behavioural disturbances that may result from the geophysical survey will not have a discernible impact on interesting behaviours or result in the displacement of individual animals (potentially exposed within tens of metres of the passing geophysical survey vessel for a brief period). As a result, and given the temporary nature of the survey activities, no population level impacts are expected.

**Short-nosed Sea Snake**

Impacts of acoustic signals on sea snakes have not been researched in great depth. Guinea and Whiting (2005) reported that very few short-nosed sea snakes moved as far as 50 m from the reef flat and are therefore unlikely to be encountered in high numbers in the Operational Areas given its proximity to suitable reef habitat.

**Fishes and Elasmobranchs**

*Species Sensitivity and Thresholds*

Fishes are primarily sensitive to the particle motion component of sound at close range to a sound source, while the presence of the swim bladder results in a varying degree of sensitivity of some fishes to sound pressure (Popper & Hawkins, 2018; Popper et al., 2019). Consequently, fishes are broadly categorised into three groups with respect to their hearing capabilities that are relevant to the types of fishes and sharks that may be present in the Operational Area (Popper et al., 2014):

- Fishes with no swim bladder or other gas chamber (e.g. sharks, mackerels) – Sensitive only to particle motion, not sound pressure changes.
- Fishes with swim bladders, but without a direct connection between the swim bladder and the inner ear (e.g. demersal snappers and emperors) – Hearing primarily involves particle motion with some limited ability to indirectly detect changes in sound pressure.
- Fishes with a swim bladder or other gas volume connected directly to the inner ear (e.g. herrings, sardines, pilchards, shads) – These fishes are able to detect both sound pressure as well as particle motion, and are susceptible to barotrauma.

Sound exposure thresholds and criteria applicable to the types of fishes and sharks that are likely to occur in the Operational Areas are summarised in Table 6-9 below.

Popper et al. (2014) proposed a relative risk criteria (high, moderate, low) for behavioural effects to fishes at three distance categories, near (N) (tens of metres from the source), intermediate (I) (hundreds of metres from the source), and far (F) (kilometres from the source). It is important to note however, that the criteria are based on studies into the effects of exploration seismic surveys and are therefore highly conservative for the low energy geophysical instruments proposed for this activity.

**Table 6-9: Sound exposure thresholds and criteria for impulsive sounds applicable to fishes**

Type of animal	Mortality and Potential mortal injury	Impairment			Behaviour
		Recoverable injury	TTS	Masking	
Fish: No swim bladder (particle motion detection)	>219 dB SEL <sub>24h</sub> or >213 dB PK	>216 dB SEL <sub>24h</sub> or >213 dB PK	>>186 dB SEL <sub>24h</sub>	(N) Low (I) Low (F) Low	(N) High (I) Moderate (F) Low
Fish: Swim bladder not involved in hearing (particle motion detection)	210 dB SEL <sub>24h</sub> or >207 dB PK	203 dB SEL <sub>24h</sub> or >207 dB PK	>>186 dB SEL <sub>24h</sub>	(N) Low (I) Low (F) Low	(N) High (I) Moderate (F) Low

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Fish: Swim bladder involved in hearing (primarily pressure detection)	207 dB SEL <sub>24h</sub> or >207 dB PK	203 dB SEL <sub>24h</sub> or >207 dB PK	186 dB SEL <sub>24h</sub>	(N) Low (I) Low (F) Moderate	(N) High (I) High (F) Moderate
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**Impact Assessment**

The potential for injury or TTS effects to fish resulting from single impulse PK or accumulated exposures to SBP, MBES and SSS sound is limited to within 1–2 m beneath or to the side of the sound source (Zykov, 2013; McPherson and Wood 2017). Single impulse exposures at this range are highly unlikely to occur as are accumulated exposures over several hours at this range.

The impacts to fishes are, therefore, likely to be limited to localised and temporary behavioural changes. The criteria suggested by Popper et al. (2014) in Table 6-9 are based on exploration seismic surveys and are therefore highly conservative for the low energy geophysical instruments proposed for this activity. Therefore, the potential behavioural effects to the demersal and pelagic fish species in the Operational Areas (which are primarily sensitive to close-range particle motion changes rather than sound pressure) are likely to be limited to within tens of metres of the various geophysical and geotechnical sound sources proposed for this activity.

Impacts to protected species of sharks and rays, such as whale sharks, are not expected given that sharks do not possess swim bladders and are not sensitive to sound pressure. The Operational Area overlaps with the BIA for foraging whale sharks, however, the potential for behavioural effects within just tens of metres of the geophysical survey instruments indicates that behavioural effects will not be significant and whale sharks will be able to continue to utilise the wider area for foraging.

**Potential Impacts to Ecosystems/Habitats**

Modelling of sound levels beneath SBP, MBES and SSS instruments (Zykov, 2013; McPherson and Wood 2017) indicates that there would be no impact to benthic invertebrates. Therefore, benthic habitats and communities, including those within the Ancient coastline at the 125 m depth contour KEF, will not be affected by sound produced by the geophysical or geotechnical survey activities.

Impacts to plankton will be limited to within just metres (McPherson and Wood 2017), which is negligible in the context of naturally variability.

Therefore, impacts to marine habitats, primary and secondary production (plankton) and ecosystems are not expected.

**Cumulative Underwater Sound Impacts**

Given the very localised extent of potential effects from the geophysical and geotechnical survey techniques described above, there is limited potential for the PGGAP to contribute to cumulative sound impacts within the areas accessed by fisheries in the region.

The potential for cumulative impacts to arise from other concurrent activities is also considered. As described in Section 3, existing subsea infrastructure associated is located within the Operational Areas. However, production noise produced by this infrastructure will be relatively low and no significant cumulative impacts are expected. Vessel noise associated with these activities may result in some localised behavioural effects in addition to those that result from the geophysical and geotechnical activities, but the cumulative effects will be limited.

Overall, cumulative impacts associated with sound emitted during the PGGAP are likely to be temporary and are expected to have no lasting effect.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)28</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
No additional controls were identified.				
<b>Good Practice</b>				
Implement a shut-down zone around SBP for: <ul style="list-style-type: none"> <li>• Cetaceans (low and mid frequency)</li> <li>• Marine turtles</li> <li>• Whale sharks.</li> </ul>	F: Yes. However as equipment is underwater effective implementation of zones is challenging from topside observation. CS: Moderate, requires use of a dedicated suitably trained crew member to undertake Marine Fauna Observations.	Limited. None of the proposed SBP sources will reach received injury levels to cetaceans. Turtles or whale sharks would need to be less than 1 m from the source which is not credible. Species that can be detected reliably enough to implement a shutdown are expected to self-mitigate against TTS through avoidance of the vessel keeping them outside the range of the acoustic source where TTS could occur.	Disproportionate. Limited environmental benefit and additional costs	No
Implement a shut-down zone around SSS for: <ul style="list-style-type: none"> <li>• Cetaceans (low and mid frequency)</li> <li>• Marine turtles</li> <li>• Whale sharks.</li> </ul>	F: Yes. However as equipment is underwater effective implementation of zones is challenging from topside observation. CS: Moderate, requires use of a dedicated suitably trained crew member to undertake Marine Fauna Observations.	Limited Species that can be detected reliably enough to implement a shutdown are expected to self-mitigate against TTS or injury through avoidance of the vessel keeping them outside the range of the acoustic source where injury or TTS could occur. Additionally, the SSS, the frequency range of these devices are outside the estimated frequency hearing range of some of the identified protected species (low frequency cetaceans, turtles and whale sharks).	Disproportionate. Limited environmental benefit and additional costs	No

28 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)28</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<p>EPBC Regulations 2000 - Part 8 Division 8.1 Interacting with cetaceans, including the following measures:</p> <p>Project vessels will not travel greater than 6 knots within 300 m of a cetacean or turtle (caution zone) and not approach closer than 100 m from a whale.</p> <p>Project vessels will not approach closer than 50 m for a dolphin or turtle and/or 100 m for a whale (with the exception of animals bow riding).</p> <p>If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots.</p> <p>Project vessels will not travel greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.</p>	<p>F: Yes</p> <p>CS: Minimal cost. Standard practice.</p>	<p>Implementation of controls for reduced vessel speed around cetaceans can potentially reduce the potential impacts of the geophysical survey equipment. Adopting this control in relation to whale sharks and marine turtles will also reduce potential impacts to protected species</p>	<p>Controls based on legislative requirements – must be adopted.</p>	<p>Yes</p> <p><b>C 3.1</b></p>
<p>Have trained marine crew or MFO onboard the survey vessel to observe for marine fauna.</p>	<p>F: Yes.</p> <p>CS: Costs associated with implementation are limited to time associated with training marine crew, as observations would be made as part of general watch.</p>	<p>Trained marine crew are to conduct prestart observations when deploying equipment to provide the opportunity to modify the PGGAP if marine fauna are observed.</p>	<p>Limited benefit given the lack of sensitive habitats overlapping the operational area and the short duration of the PGGAP.</p> <p>Cost associated with training specialist staff would outweigh potential benefit.</p>	<p>No</p>

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)28</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
Conduct prestart visual observations for whales prior to start-up of noise emitting survey equipment.	F: Yes. CS: Minimal. Bridge crews already maintain a constant watch during operations.	Reduces the likelihood of individuals of pygmy blue whales being within proximity of the acoustic source where behavioural impact could occur.  This control is intended to minimise the impact of noise emitting survey equipment to protected pygmy blue whales. A precautionary approach has been taken and the control has been applied to whales more broadly.	Benefits outweigh cost/sacrifice. Given the conservation status of pygmy blue whales, and to conduct the activity in a way that is not inconsistent with the Blue Whale Conservation Management Plan, conducting prestart visual observations prior to the start-up of noise emitting survey equipment is considered a proportionate measure.	Yes C 4.1
Conduct prestart visual observations for whale sharks and turtles prior to start-up of noise emitting survey equipment.	F: Yes. CS: Minimal. Bridge crews already maintain a constant watch during operations.	Reduces the likelihood of individuals of turtles and / or whale sharks being within proximity of the acoustic source where behavioural impact could occur.	Disproportionate as the implementation of C 3.1 will limit vessels from approaching whale sharks and turtles within distances (50 m and 30 m respectively) and thereby already reducing the likelihood of individuals of whale sharks and turtles being within proximity of the acoustic source where behavioural impact could occur.	No See C 3.1
Conduct prestart visual observations for dolphins prior to start-up of noise emitting survey equipment.	F: Yes. CS: Minimal. Bridge crews already maintain a constant watch during operations.	Reduces the likelihood of individuals of dolphins being within proximity of the acoustic source where behavioural impact could occur.	Disproportionate, it is expected that the sound levels that may result in behavioural impacts to dolphins are most likely to occur when the vessel is at a proximity of tens of meters. Implementation of C3.1 reduces the likelihood of individuals of dolphins being within 50 metres of the vessel, so it is unlikely	No See C 3.1

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)28</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
			individuals of dolphins will experience sound levels that may result in behavioural impacts".	
Vary the timing of the PGGAP to avoid migration and breeding periods.	F: No. Timing of geotechnical activities is currently undetermined, and due to vessel availability and operational requirements, undertaking activities during migration seasons may not be able to be avoided. CS: Significant cost and schedule impacts due to delays in securing project vessel for specific timeframes.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Eliminate</b>				
Eliminate generation of noise from survey equipment	F: No. Generation of noise from these sources cannot be eliminated due to operating requirements. CS: Inability to conduct the PGGAP. Loss of project.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Substitute</b>				
Apply soft start procedures.	F: Not feasible. When using lower power sources such as those described in Table 3-3, there is limited ability to ramp up pulses, so doing a soft start at a lower sound level is physically not possible. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Engineered Solution</b>				
Passive Acoustic Monitoring (PAM)	F: Yes. CS: Additional costs of PAM operators onboard the vessels. Operational costs of unnecessary shutdowns potentially prolonging the activity.	PAM has limited applicability for baleen whales such as those found in the Operational Areas (humpback, blue). Although efficacy of PAM is greater for	Disproportionate. Additional costs for little benefit to cetacean species expected in the Operational Areas.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)28</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
		toothed whales and dolphins, given the expected occurrence of these species in the Operational Areas, and the low level of impact that could occur, applying PAM is unlikely to benefit the cetacean species.		
Apply bubble curtains to reduce noise propagation.	F: No. Bubble curtain installation and operation in open water is not feasible due to technical operation constraints, i.e. water depth/current. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
ALARP Statement: On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type A, Section 2.5.2), Woodside considers the adopted controls appropriate to manage the impacts of routine noise emission from survey equipment. As no reasonable additional/alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.				

<b>Demonstration of Acceptability</b>
<b>Acceptability Statement:</b> The impact assessment has determined that, given the adopted controls, noise emissions from geophysical and geotechnical surveys represent a minor and temporary disruption to a small portion of the population of protected species. Further opportunities to reduce the impacts have been investigated above. The adopted controls are considered good survey practice/industry best practice. The potential impacts are considered broadly acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts of noise emissions from geophysical and geotechnical survey activities to a level that is broadly acceptable. On the basis of the environmental risk assessment outcomes and use of the relevant tools appropriate to the decision type, Woodside considers the adopted controls appropriate to manage the impacts and risks of routine noise emission from survey equipment. As no reasonable additional/alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 4</b> No impact to marine fauna from noise emissions greater than F <sup>29</sup> .	<b>C 3.1</b> Refer Section 6.5.3	<b>PS 3.1</b> Refer Section 6.5.3	<b>MC 3.1</b> Refer Section 6.5.3
	<b>C 4.1</b> Implement an observation zone for 30 minutes prior to start up around geophysical survey equipment and implement start-up delay procedures for whales.	<b>PS 4.1</b> Start-up delayed if a whale is sighted within the observation zone (150 m).	<b>MC 4.1.1</b> Vessel bridge daily log shows geophysical survey equipment not started up until no whales are sighted within 150 m observation zone.

29 No lasting effect (<1 month). Localised impact not significant to environmental receptor.

### 6.5.5 Routine Light Emissions: External Lighting on Survey Vessels

Context													
Project Vessels - <b>Section 3.6</b>		Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>					Consultation - <b>Section 5</b>						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
External light emissions onboard project vessels					X		A	F	-	-	PJ	Broadly Acceptable	EPO 5
Description of Source of Impact													
<p><b>Vessel Operations</b></p> <p>Routine light emissions include light sources that alter the ambient light conditions in an environment at night. The project vessels will routinely use external lighting to facilitate navigation and conduct safe operations at night throughout the PGGAP. This lighting typically consists of bright white (i.e. metal halide, halogen, fluorescent) lights and is not dissimilar to lighting used for other offshore activities, including fishing and shipping.</p> <p>Lighting levels will be determined primarily by operational safety and navigational requirements under relevant legislation, specifically the <i>Navigation Act 2012</i>. Project vessels will be lit to maintain operational safety on a 24-hour basis. External light emissions from the vessels are typically managed to a level that maintains good night vision for crew members. Lighting on the vessels is used to allow safe operations during night hours, and to communicate the vessel's presence and activities to other marine users (i.e. navigation lights). Lighting is required to safely operate the vessels and cannot reasonably be eliminated.</p> <p>The activity is expected to take up to 40 days for the geophysical activity and 40 days for the geotechnical activity. The activity may be undertaken as a single campaign, or split over a number of campaigns. Operations will take place 24 hours, 7 days a week. Due to the transient nature of the survey activity, the source location of the light emissions will vary across the Operational Area throughout the activity.</p> <p>Lighting from project vessels may appear as a direct light source from an unshielded lamp with direct line of sight to the observer or through sky glow. Direct lighting falling upon a surface is referred to as light spill. Sky glow is the diffuse glow caused by light that is screened from view, but through reflection and refraction creates a glow in the atmosphere. The distance at which direct light and sky glow may be visible from the source depends on the characteristics of the vessel (namely height above sea level) and environmental conditions (e.g. cloud cover). The external lighting, which is located over the entire vessel, is not expected to be more than 20 m above sea level. The distance to the horizon at which components of the vessel will be directly visible can be estimated using the formula of:</p> <p><i>horizon distance = 3.57 × √height</i></p>													

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where 'horizon distance' is the distance to the horizon at sea level in kilometres and 'height' is the height above sea level of the light source in metres. Using this formula, the approximate distances at which vessel lighting will be visible at sea level is about 16 km from the vessel, based on the typical survey vessels that are proposed to be used for the PGGAP.

While the line of sight may extend to this 16 km distance from the source (vessel), the light density (measured in Lux – which represents the intensity of light that arrives at or leaves a surface, as perceived by the human eye) rapidly decreases as distance increases from the source of the light. Monitoring undertaken as a part of Woodside's 2014 study indicated that light density (from navigational lighting) attenuated to below 1.00 Lux and 0.03 Lux at distances of 300 m and 1.4 km, respectively, from the source (a MODU). Light densities of 1.00 Lux and 0.03 Lux are comparable to natural light densities experienced during deep twilight and during a quarter moon. Navigational lighting levels from project vessels is expected to be appreciably lower than lighting on a MODU, hence light emissions from the project vessels are expected to be below 1.00 Lux within 300 m from the source.

### **Impact Assessment**

#### **Environmental Value(s) Potentially Impacted**

Receptors that have important habitat within a 20 km buffer of the Operational Areas were considered for the impact assessment, based on recommendations of the National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds (NLPG). The 20 km threshold provides a precautionary limit based on observed effects of sky glow on marine turtle hatchlings, demonstrated to occur at 15–18 km, and fledgling seabirds grounded in response to artificial light 15 km away (Commonwealth of Australia, 2020). Within the 20km buffer of each Operational Area, no additional species were identified that are potentially affected by light (dugongs, grey nurse sharks, Australian snubfin dolphin and leaf-scaled seasnake were the only ones identified as occurring within the 20km buffer).

Light emissions have the potential to disrupt ecological processes that rely on natural light for visual cues. Light emissions can affect fauna in two main ways:

- Behaviour: many organisms are adapted to natural levels of lighting and the natural changes associated with the day and night cycle as well as the phase of the moon. Artificial lighting has the potential to create a constant level of light at night that can override these natural levels and cycles.
- Orientation: species such as marine turtles and birds may also use lighting from natural sources to orient themselves in a certain direction at night. In instances where an artificial light source is brighter than a natural source, the artificial light may override natural cues, leading to disorientation.

There is no known critical habitat within the Operational Area for EPBC listed species, nor does the Operational Area overlap Habitat Critical for the survival of the species of marine turtles, although there is overlap with several BIAs (Section 4.6):

- Flatback turtle internesting buffer
- Wedge-tailed shearwater breeding
- Whaleshark foraging
- Dugong nursing

The fauna within the Operational Areas are predominantly pelagic fish and zooplankton, with a low abundance of transient species such as migratory seabirds, marine turtles, whale sharks and whales transiting through the area. Cetaceans, fish (including whale sharks) and planktonic organisms are not expected to be impacted by above-surface light emissions.

Given the low abundance of fauna expected to occur within the Operational Areas, impacts from light emissions are considered to be highly unlikely.

The light buffer of 20 km around Operational Area A also overlaps the hawksbill turtle and green turtle internesting buffer BIAs and internesting habitat critical to the survival of marine turtle species, and the 20km buffer around Operational Area C overlaps the flatback turtle internesting buffer.

However, as outlined below, internesting adult female turtles are not impacted by artificial light emissions, and it is more relevant to consider separation distances between light sources and nesting habitat critical for turtles (i.e., the nesting locations as identified in Table 6 of the *Recovery Plan for Marine Turtles in Australia 2017 – 2027*) (Commonwealth of Australia, 2017). At the closest point the Petroleum Activities Area is located approximately 34 km away from the nearest turtle nesting locations at the Montebello Islands.

#### **Migratory Birds**

Artificial lighting can attract and disorient seabird species resulting in species behavioural changes (e.g. circling light sources or disrupted foraging), injury or mortality near the light source as a result of collision (Longcore and Rich, 2004; Gaston et al. 2014). The Operational Areas may be occasionally visited by migratory and oceanic birds, but do

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not contain any emergent land that could be used as roosting or nesting habitat and contains no known critical habitats for any species. The BIA, for wedge-tailed shearwater breeding and foraging overlaps the Operational Areas with the breeding period occurring, at the Montebello Islands, from August to April (Section 4.6.5).

The most vulnerable life stages for seabirds and migratory shorebirds are nesting adults or fledglings. Nesting or fledgling seabirds and migratory shorebirds are vulnerable to artificial lighting within 20 km of the nesting location (Commonwealth of Australia, 2020). For shearwater species, fledglings are predominantly impacted by onshore lighting sources, which can override sea finding cues and attract fledglings further inland, preventing them from reaching the sea (Mitkus et al., 2018; Telfer et al., 1987). The Operational Area overlaps a foraging and breeding BIA for the wedge-tailed shearwater, and is approximately 34 km from the Montebello Islands, which are an important breeding site for this species.

Adult shearwaters are vulnerable to artificial lighting during the breeding cycle, when returning to and leaving the nesting colony to maintain nesting sites or forage. Foraging adult wedge-tailed shearwaters may be attracted to sources of light emissions to feed on fish drawn to the light, or may be attracted to vessel light during periods of low visibility (Catry et al., 2009; Whittow, 2020), however the species feeds primarily during the day. Artificial light can also impact behaviour and adult nest attendance, or confuse shearwater species, resulting in injury or mortality as a result of birds colliding with structures (Cianchetti-Benedetti et al., 2018; Rodriguez et al., 2017).

Behavioural disturbance to birds is expected to be localised to within the vicinity of the vessels within the Operational Area. The light source from the vessels within the Operational Area will be temporary and only when operations are occurring. Interactions with seabirds are therefore expected to be unlikely and any impacts are predicted to be at an individual and not a population level. Therefore, any temporary behavioural disturbance of birds will be localised around the light sources and not result in a substantial adverse effect on a population of species or its lifecycle.

Given the nearest emergent land (Montebello Islands) is ~34 km north of and outside of the light impact buffer (20 km), impacts to adult nesting or fledgling seabirds and migratory shorebirds are not expected. Artificial light from the PGGAP is not predicted to disrupt critical breeding behaviours within important nesting habitat or displace seabirds from nesting habitat.

Migratory shorebirds may be present in or fly through the region between July and December, and again between March and April as they complete migrations between Australia and offshore locations (Commonwealth of Australia, 2015c). The risk associated with collision from seabirds and shorebirds attracted to the light is considered to be low, based on the intermittent and localised nature of the activities in the Operational Area, as well as the distance offshore. Impacts are expected to be limited to temporary behavioural disturbance to isolated individuals that is not expected to disrupt important migration patterns of migratory seabirds.

Based on the detailed evaluation, the magnitude of impacts to birds from light emissions during activities associated with the Petroleum Activities Program is expected to have no lasting effect.

#### **Marine Turtles – Hatchlings**

Turtle hatchlings emerge from the nest and orient towards the sea. After entering the water, hatchlings use a combination of cues (wave direction and currents) to orient and travel into offshore waters. Impacts to the sea-finding behaviour of hatchlings are more common for light sources behind a beach, as lighting offshore will orient emerging hatchlings towards the sea. Artificial light at close distances can also impact hatchling dispersal once they are in the water. Light spill may 'entrap' hatchling swimming behaviour, reducing the success of their seaward dispersion and potentially increasing their exposure to predators via silhouetting (Salmon et al., 1992).

As described above, the nearest turtle nesting locations to the Operational Area are on Montebello Island (~34 km) and the risk of significant numbers of dispersing hatchlings becoming attracted to direct light or sky glow from project vessels is not considered credible. This is supported by the findings of a desktop lighting impact assessment for the Scarborough Project, conducted by Pendoley Environmental (2020). At a range of ~34 km, the density of dispersing hatchlings is expected to be low and very few individuals will be at risk of attraction. For any isolated individuals potentially attracted to light spill from project vessels, following sunrise, any effect of these light sources on hatchlings will be eliminated, allowing dispersal behaviour to resume.

Any impacts to hatchling turtles from artificial light will be limited to possible short-term behavioural impacts to isolated individual hatchlings offshore, with no lasting effect to the species.

#### **Marine Turtles – Adults**

Although individuals undertaking behaviours such as internesting, migration, mating (adults) or foraging (adults and pelagic juveniles) may occur within Operational Area, marine turtles do not use light cues to guide these behaviours. Furthermore, there is no evidence, published or anecdotal, to suggest that internesting, mating, foraging or migrating turtles are impacted by light from offshore vessels. As such, light emissions from the project vessels are unlikely to result in displacement of, or behavioural changes to individuals in these life stages (Pendoley Environmental, 2020).

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Artificial lighting may affect where nesting adult turtles emerge onto the beach, the success of nest construction, whether nesting is abandoned, and the seaward return of adults (Salmon et al., 1995a, 1995b; Salmon and Witherington, 1995). Such lighting is typically from residential and industrial development at the coastline, rather than offshore from nesting beaches. As described above, the beaches on Montebello Island (~34 km from the Operational Area) are the nearest known turtle nesting locations, meaning direct light from the project vessels will not be visible to nesting adult turtles. Furthermore, nesting females are not considered highly vulnerable to disorientation due to artificial light (Pendoley Environmental, 2020) and it is highly unlikely that the Petroleum Activities Program could cause disruption to sea-finding behaviour post nesting, particularly as the light source is located directly offshore in the same direction that females would be heading in anyway during normal sea-finding behaviour. As such, vessel light sources will not discourage females from nesting, or affect nest site selection, and therefore will not displace females from nesting habitat.

Although the Flatback turtle internesting buffer BIA and flatback turtle habitat critical zone overlap with Operational Area A, these areas are not known to provide foraging habitat for turtles and therefore there is a low potential for internesting turtles to be present within the Operational Areas. Although individual turtles migrating, mating or foraging may occur within or adjacent to the Operational Area, marine turtles do not use light cues to guide these behaviours. As such, light emissions from the project vessels are unlikely to result in more than localised behavioural disturbance to isolated transient individuals, with no lasting effect to the species.

**Fish**

Lighting from the presence of a vessel may result in the localised aggregation of fish below the vessel. These aggregations of fish are considered localised and temporary and any long-term changes to fish species, including whale sharks, composition of abundance is considered highly unlikely. Similarly, any localised impacts to marine fish is not expected to impact on any commercial fishers in the area.

**Cumulative Impacts**

No significant cumulative impacts over the life of the PGGAP or in relation to other operations and activities in the region (e.g. GWA, NRC) are expected.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>30</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
No additional controls were identified.				
<b>Good Practice</b>				
Lighting will be limited to the minimum required for navigational and safety requirements, with the exception of emergency events.	F: Yes. Lighting is typically appropriate for navigation and safety. CS: Minor	Given the potential impacts to turtles during this activity is insignificant, implementation of this control would not result in a reduction in consequence.	While the control does not result in significant reduction of impacts, it is good practice and not at significant cost.	Yes <b>C 5.1</b>
Implement a Seabird Management Plan (Section 7.4) that includes:	F: Yes. The management plan is an internal Woodside process developed to	Implementing a Seabird Management Plan will enable standardised data collection to better	While the control does not result in significant reduction of impacts, it	Yes <b>C 5.2</b>

*30 Qualitative measure*

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)30</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<ul style="list-style-type: none"> <li>Standardisation and maintenance of record keeping and reporting of seabird interactions</li> <li>Procedures on seabird intervention, care and management</li> <li>Regulatory reporting requirements for seabirds (unintentional death of or injury to seabirds that constitute MNES)</li> <li>A scalable adaptive management process should negative light impacts to nocturnal seabirds be detected.</li> </ul>	manage the impacts of artificial light emissions. CS: Minimal cost/sacrifice.	understand seabird interactions with project vessels, provide guidance on seabird management to enable the best outcomes for grounded birds and facilitate escalation and adoption of management actions within 24 hrs, preferably before next nightfall, should triggers be met.	is good practice and not at significant cost.	
<b>Professional Judgement – Eliminate</b>				
Substitute external lighting with 'turtle-friendly' light sources (reduced emissions in turtle visible spectrum).	F: Yes. Replacement of external lighting with turtle-friendly lighting is technically feasible, although is not considered to be practicable.  CS: Significant cost sacrifice. The retrofitting of all external lighting on the vessels would result in considerable cost and time expenditure. Considerable logistical effort to source sufficient inventory of the range of light types onboard the vessel.	Given the potential impacts to turtles during this activity are insignificant, implementing this control would not reduce the consequence.	Grossly disproportionate. Implementing the control requires considerable cost sacrifice for minimal environmental benefit. The cost/sacrifice outweighs the benefit gained.	No
Use of curfews to manage light emissions at night.	F: Yes. Variation of PGGAP timing to manage light emissions at night is technically feasible, although it is	Given the potential impacts to turtle and seabird species during this activity are insignificant, implementing this control would not	Grossly disproportionate. Implementing the control requires considerable cost sacrifice for minimal environmental benefit	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)30</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	<p>not considered to be practicable.</p> <p>CS: Significant cost sacrifice. The use of curfews to limit light emissions at night would substantially limit operations to only daylight hours.</p> <p>Additionally, the project vessels are required to use a baseline level of lighting for navigational safety, meaning the use of curfews to limit project operations to daylight hours would not eliminate light emissions at night.</p> <p>The use of curfews would effectively double the duration of the campaign, resulting in increased environmental impacts and risks and a significant increase in cost.</p>	<p>reduce the consequence.</p>	<p>with respect to light emissions and increased environmental impacts in other aspects.</p> <p>The cost/ sacrifice outweighs the benefit gained.</p>	
<p>Vary the timing of the PGGAP to avoid shearwater breeding season (August to April)</p>	<p>F: Yes. Variation of the PGGAP timing to avoid shearwater fledgling season periods is technically feasible, although it is not considered practicable.</p> <p>The Operational Areas overlap with the shearwater BIA and may be occasionally visited by migratory and oceanic birds.</p> <p>However, the Operational Areas do not contain any emergent land that could be used as roosting or nesting habitat and contains no known critical habitats for any species, meaning the risk of potential impacts to seabirds is low.</p>	<p>Given the impacts to seabirds during this activity are insignificant, implementing this control would not reduce the consequence.</p>	<p>Grossly disproportionate. Implementing the control requires considerable cost sacrifice for minimal environmental benefit.</p> <p>The cost/ sacrifice outweighs the benefit gained.</p>	<p>No</p>

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)30</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	CS: Significant cost and schedule impacts due to delays in securing vessels for specific timeframes, particularly because this would limit operations to a 3-month window.			
Vary the timing of the PGGAP to avoid peak turtle interning periods (December to January).	<p>F: Yes. Variation of the PGGAP timing to avoid turtle interning periods is technically feasible, although it is not considered practicable.</p> <p>Operational Area A overlaps with the flatback turtle interning buffer BIA in an area not known to provide foraging habitat. Given the low potential for interning turtles to be present with the Operational Areas, the risk of potential impacts from vessel light emissions on adult turtles is considered to be low.</p> <p>CS: Significant cost and schedule impacts due to delays in securing vessels for specific timeframes.</p>	Given the impacts to turtles during this activity are insignificant, implementing this control would not reduce the consequence.	Grossly disproportionate. Implementing the control requires considerable cost sacrifice for minimal environmental benefit. The cost/sacrifice outweighs the benefit gained.	No
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>30</sup>	Benefit in Impact/Risk Reduction	Proportionality	Control Adopted
<p><b>ALARP Statement:</b></p> <p>On the basis of the environmental impact assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential impacts from routine light emissions from the project vessels. The potential impacts to marine fauna, such as turtles, fish or seabirds, from light emissions from the project vessels is expected to be restricted to localised attraction (if any), and are considered to be localised, temporary and minor. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

Demonstration of Acceptability
<p><b>Acceptability Statement:</b></p> <p>The impact assessment has determined that, given the adopted controls, routine light emissions from the project vessels may result in a negligible impact that is unlikely to result in a potential impact greater than localised behavioural disturbance to fauna within the Operational Areas, with no lasting effect. Further opportunities to reduce the impacts have been investigated above. The potential impacts are consistent with industry best practice and are considered broadly acceptable in their current state.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts to be managed to a level that is broadly acceptable.</p>

EPOs, PS and MC			
EPO	Controls	PS	MC
<p><b>EPO 5</b></p> <p>No impact to protected fauna greater than a consequence level of F from artificial light emissions during the PGGAP.<sup>31</sup></p>	<p><b>C 5.1</b></p> <p>Lighting will be limited to the minimum required for navigational and safety requirements, with the exception of emergency events.</p>	<p><b>PS 5.1</b></p> <p>Lighting will be limited to that required for safe work/navigation.</p>	<p><b>MC 5.1.1</b></p> <p>Inspection by Woodside Site Representative and memo verifies no excessive light being used.</p>
	<p><b>C 5.2</b></p> <p>Implement an Offshore Seabird Management Plan (Section 7.4) that includes:</p>	<p><b>PS 5.2</b></p> <p>Implementation of the Woodside Offshore Seabird Management Plan by PGGAP vessels</p>	<p><b>MC 5.2.1</b></p> <p>Relevant crew inductions to include requirements under the Offshore Seabird Management Plan.</p>

<sup>31</sup> Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors.'

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	<p>Standardisation and maintenance of record keeping and reporting of seabird interactions.</p> <ul style="list-style-type: none"> <li>• Procedures on seabird intervention, care and management</li> <li>• Regulatory reporting requirements for seabirds (unintentional death of or injury to seabirds that constitute MNES).</li> <li>• A scalable adaptive management process should negative light impacts to nocturnal seabirds be detected.</li> </ul>	<p>to minimise potential impact should nocturnal seabird groundings occur.</p>	<p><b>MC 5.2.2</b> Seabird sightings and interactions (where occurrent) recorded in offshore marine fauna log.</p> <p><b>MC 5.2.3</b> Copy of regulatory reports completed as required in accordance with the Offshore Seabird Management Plan.</p>

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### 6.5.6 Routine Atmospheric and Greenhouse Gas Emissions from Fuel Use

Context													
Project Vessels - Section 3.6			Physical Environment - Section 4.4				Consultation - Section 5						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Routine atmospheric emissions from fuel use/ Emissions generated from internal combustion engines on project vessels and machinery			X				A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 6
Description of Source of Impact													
<p>Atmospheric emissions assessed in this EP have been classified into two categories:</p> <ul style="list-style-type: none"> <li>Atmospheric pollutants (non-greenhouse gas emissions) are gases and particulates from an activity, or piece of machinery, which have a recognised adverse effect on human health and/or flora and fauna. The main emissions responsible for these effects include carbon monoxide (CO), oxides of nitrogen (NOx), sulphur dioxide (SO<sub>2</sub>), particulate matter less than 10 microns (PM10), non-methane volatile organic compounds (VOCs), BTEX (benzene, toluene, ethylbenzene and xylenes), which are specific VOCs of interest.</li> <li>Greenhouse gas (GHG) emissions are those gasses within the atmosphere that absorb long-wave radiation, and thus trap heat reflected from the Earth's surface. The main gases responsible for this effect include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Other greenhouse gases include perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF<sub>6</sub>).</li> </ul> <p>Atmospheric emissions will be generated by the project vessels from internal combustion engines (including all equipment and generators) during the PGGAP.</p> <p>Atmospheric emissions generated during these operations will include SO<sub>x</sub>, NO<sub>x</sub>, particulates and VOCs. SO<sub>x</sub> and particulate matter emissions are heavily influenced by the fuel used and its relative sulphur content, MGO usually having a lower sulphite content than marine diesel oil (MDO) or heavy fuel oil (HFO).</p> <p>There is the potential for use of a drillship during the activity (for geotechnical drilling) and a smaller geophysical survey vessel. The assumption is that the vessels will use up to 10 tonnes per day, and the geophysical survey vessel up to 7 tonnes per day. Helicopter use has not been provided for in this EP. The total expected GHG emissions from vessel activity are presented in Table 6-10.</p>													
Table 6-10: GHG emissions and sources													
Source		GHG Emissions released (CO <sub>2</sub> -e t)											
Geophysical/Geotechnical Operations													
Geophysical Survey Vessel Operations (40 days)		759											
Geotechnical Survey Vessel (80 days)		2,168											

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<b>Total GHG Emissions</b>	<b>2,927</b>
<b>GHG</b>	
<b>Environmental Value(s) Potentially Impacted</b>	
<p><b>Air Quality (atmospheric pollutants)</b></p> <p>Atmospheric emissions may result in a decline in local air quality, within the immediate vicinity of the emissions source. As described above, produced emissions throughout the PGGAP will include SO<sub>2</sub>, NO<sub>x</sub>, ozone depleting substances, CO<sub>2</sub>, particulates and VOCs. Emissions from engines, generators and deck equipment may be toxic, odoriferous or aesthetically displeasing, and will result in a reduction in air quality.</p> <p>Given the offshore location of the PGGAP, and the low volume of atmospheric emissions which will be generated, biodiversity, ecological integrity, social amenities and human health will not be impacted and any potential impact to air quality is negligible.</p> <p><b>Aesthetic Value</b></p> <p>Atmospheric emissions have the potential to introduce odour and visual amenity issues which can result in changes to the aesthetic value of an area.</p> <p>Given the distance from shore of the PGGAP (~32 km) and the short duration of the activities, the potential for a change in air quality from atmospheric emissions resulting in a change to aesthetic value for tourism/recreation or settlements is not considered to be credible. Therefore, a change in aesthetic value from atmospheric emissions associated with PGGAP is negligible.</p>	

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>32</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Marine Order 97 (Marine pollution prevention – air pollution).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed may slightly reduce the likelihood of air pollution.	Control based on legislative requirements – must be adopted.	Yes <b>C 6.1</b>
Provide emissions data where relevant to vessel contractor to enable legislative reporting requirements under the NGER Act to be met.	F: Yes CS: Standard practice. Required by Woodside standards.	Tracking and reporting of emissions gives visibility to performance and enables improvement opportunities to be identified. Reporting increases transparency and accountability which can also drive performance improvements.	Control based on legislative requirements – must be adopted	Yes <b>C 6.2</b>
<b>Good Practice</b>				

32 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>32</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
Use only low sulphur fuel	F: Yes CS: Minimal cost. Standard practice.	Legislative requirements to be followed may slightly reduce the likelihood of air pollution.	Control based on legislative requirements – must be adopted.	Yes <b>C 6.1</b>
<b>Professional Judgement – Eliminate</b>				
Do not combust fuel.	F: No. There are no vessels that do not use internal combustion engines. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A, Section 2.5.2.1), and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls good survey practice/industry best practice, and appropriate to manage the potential impacts of fuel combustion. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<p><b>Acceptability Statement:</b></p> <p>The impact assessment has determined that, given the adopted controls, fuel combustion is unlikely to result in a potential impact greater than a temporary decrease in local air quality and/or water quality standards, with no lasting effect. Further opportunities to reduce the impacts have been investigated above. The controls adopted are considered good survey practice/industry best practice and meet the legislative requirements within Marine Order 97.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts to be managed to a level that is broadly acceptable.</p>

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 6</b> Emissions to atmosphere as a result of fuel combustion and incineration limited to those necessary to complete the Petroleum Activities Program.	<b>C 6.1</b> Marine Order 97 (Marine pollution prevention - air pollution) which details requirements for: an International Air Pollution Prevention Certificate, required by vessel class use of low sulphur fuel when available a Ship Energy Efficiency Management Plan, where required by vessel class	<b>PS 6.1</b> Survey vessels compliant with Marine Order 97 (Marine pollution prevention – air pollution) to restrict emissions to those needed to perform the activity. Woodside Vessel Marine Assurance Process conducted before contracting vessel, to ensure suitability and compliance with vessel combustion certification/ marine order requirements.	<b>MC 6.1.1</b> Marine Assurance inspection records demonstrate compliance with Marine Order 97.
	<b>C 6.2</b> Provide emissions data, where relevant, to contractor vessel to enable legislative reporting requirements under the NGER Act to be met.	<b>PS 6.2.1</b> GHG emissions data to be provided to contractor vessel to enable necessary regulatory reporting, where required	<b>MC 6.2.1</b> Where required, GHG emissions data was provided to contractor vessel to enable necessary regulatory reporting. Where required, email records show emissions data was provided to contractor vessel to enable necessary regulatory reporting.

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### 6.5.7 Routine and Non-routine Discharges to the Marine Environment: Survey Vessels

Context													
Project Vessels - <b>Section 3.6</b>	Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>					Consultation - <b>Section 5</b>							
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Routine discharge of sewage, grey water and putrescibles to marine environment from project vessels		X					A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 7
Routine discharge of deck and bilge water to marine environment from project vessels		X					A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 7
Routine discharge of cooling water or brine to the marine environment from project vessels		X					A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 7
Routine discharge of drill cuttings and chemicals during geotechnical drilling to the marine environment from project vessels		X					A	F	-	-	LCS GP PJ	Broadly Acceptable	EPO 7
Description of Source of Impact													
The project vessels are likely to routinely generate/discharge:													

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Small volumes of grey water to the marine environment

relatively small volumes (routinely/periodically) of bilge water, which can contain water, oil, detergents, solvents, chemicals, particles and other liquids, solids or chemicals.

variable water from vessel decks directly overboard or via deck drainage systems; sources could include rainfall events and/or deck activities such as cleaning/wash-down of equipment/decks

cooling water from machinery engines and brine water produced during the desalination process of reverse osmosis to produce potable water onboard the survey vessels.

Environmental risks relating to disposal/discharges above regulated levels or incorrect disposal/discharge of waste would be unplanned (non-routine/accidental) and are addressed in Section 6.6.5.

**Drill cuttings**

The geotechnical seabed coring will result in the indirect discharge of a small quantity of drill cuttings and fluid at the seafloor (refer Section 6.5.2). Drilling fluid will consist primarily of seawater and may have small quantities of additives. These additives are considered to be very low toxicity (as assessed through Woodside's Chemical Selection and Assessment Environment Guideline) as described in Section 6.5.2 and are expected to dilute rapidly upon discharge; as such no toxic effect to biota are expected to occur.

All drilling fluids used during the drilling process will be discharged from the borehole at the seabed including small amounts of excess fluid which may be produced. Volumes of excess drilling fluid will be limited as fluids are mixed for use on an as needs basis.

**Impact Assessment**

**Environmental Value(s) Potentially Impacted**

The project vessels will routinely discharge (on a daily basis if necessary) relatively small volumes of grey water and bilge water to the marine environment in compliance with MARPOL requirements. It is noted that sewage and putrescible wastes are not allowed to be discharged within 3 NM of land but may be discharged beyond 3 NM (including outside of the Operational Areas) so long as it is discharged in accordance with MARPOL requirements. No significant impacts are anticipated because of the minor quantities involved, localised area of impact, high level of dilution into oceanic waters and high biodegradability/low persistence of the wastes disposed.

Bilge tanks receive fluids from many parts of the vessel. Bilge water can contain water, oil, detergents, solvents, chemicals, particles and other liquids, solids or chemicals. Treatment of bilge water will be conducted using an oily water separator or transported onshore for treatment and disposal. However, if not treated prior to discharge there would be potential for a negligible and localised increase in nutrient concentrations due to the high level of dilution and the natural daily nutrient flux that occurs within the region. The potential impact from routine discharge of treated or untreated sewage, grey water, bilge water and putrescible wastes is expected to be low.

The discharges outlined, which may include other non-organic contaminants (e.g. bilge water, deck drainage and cooling water), will be rapidly diluted when discharged. Variable water discharge from the project vessel deck directly overboard or via deck drainage systems could also occur. Water sources could include rainfall events and/or from deck activities such as cleaning/wash-down of equipment/decks. They are expected to be in very small quantities and concentrations that don't pose any significant risk to any relevant receptors. As such, no significant impacts from the planned (routine and non-routine) discharges listed above are anticipated, because of the minor quantities involved and the expected localised mixing zone and high level of dilution into the open water marine environment of the Operational Areas.

Drilling fluid discharges are expected to increase turbidity and TSS levels above ambient concentrations above the seabed for a short duration during geotechnical drilling. Given the very small volumes discharged short duration and selection of low toxicity (as assessed through Woodside's Chemical Selection and Assessment Environment Guideline), the potential impacts are expected to be negligible.

**Cumulative impacts**

The project vessels will be continuously moving in the Operational Areas during the majority of the survey with only short stationary periods during the collection of geotechnical survey data. These routine and non-routine discharges are expected to be intermittent in nature for the duration of the PGGAP. Therefore, cumulative impacts to water quality within the Operational Areas are expected to be localised and short term, with no lasting effect.

It is possible that marine fauna transiting the localised area may come into contact with these discharges (e.g. marine turtles, cetaceans, fish, Section 4.6); however, given the localised extent of cumulative impacts from vessel discharges within the Operational Areas, significant impacts to marine fauna are not expected.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)33</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	No reduction in consequence would result.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.1</b>
Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	No reduction in consequence would result.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.2</b>
Marine Order 91 – oil (as relevant to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	No reduction in consequence would result.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.3</b>
<b>Good Practice</b>				
Detergents used for deck wash will be biodegradable and phosphate free	F: Yes. CS: Minimal cost.	Minimise consequence of discharges by reducing toxicity	Benefits outweigh cost/sacrifice.	Yes <b>C 7.4</b>
Implement Woodside’s Chemical Selection and Assessment Environment Guideline, or equivalent	F: Yes. CS: Minimal cost. Standard practice. Where Gold/Silver/E/D OCNS rating (and no OCNS substitution or product warning), chemicals are selected – no further control required; and If chemicals with a different OCNS rating, sub warning or non-OCNS rated chemicals are required chemicals will be assessed in accordance with the guideline prior to use.	Selection and assessment of chemicals in accordance with the Woodside process, reduces environmental impacts associated with planned chemical discharge.	Benefits outweigh sacrifice	Yes <b>C2.2</b>
<b>Professional Judgement – Eliminate</b>				

33 Qualitative measure

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No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
Store, transport and treat/dispose greywater, and bilge wastes onshore.	F: No. Would present additional safety and hygiene hazards resulting from storing, loading and transporting the waste material. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
Monitor the ambient water quality during discharge of operational fluids to verify impact during activity.	F: Yes. CS: Undertaking sampling would incur the following costs; For in-water sampling using ROV - time and logistics for tool change-out from operational tools to specialised sampling tools. Additional personnel onboard to operate ROV and coordinate sampling program. Low ROV availability due to operations can limit time to complete environmental monitoring. If additional ROV is required on the vessel, deck space and resources to run/store/service ROV. Resources for sample processing (space/equipment/personnel).	Minimal environmental benefit would be gained by monitoring during the activity. Monitoring could be used to inform additional control measures in future activities, although it's not guaranteed that additional controls would be feasible, or if they would provide any environmental benefit.	Based on the nature of the activity (i.e. predictable impacts) and relatively low sensitivity of the area application of an environmental monitoring control is considered grossly disproportionate. Cost/sacrifice outweighs the benefit to be gained in the context of the existing environment (open ocean communities).	No
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				

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**ALARP Statement:**

On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential impacts associated with planned (routine and non-routine) discharges. As no reasonable additional/alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.

**Demonstration of Acceptability**

**Acceptability Statement:**

The impact assessment has determined that, given the adopted controls, planned discharges (routine and non-routine) are unlikely to result in a potential impact greater than localised impacts not significant to environmental receptors, and no lasting effect. Further opportunities to reduce the impacts have been investigated above. The adopted controls are considered good survey practice/industry best practice and meet legislative requirements under Marine Orders 91, 95 and 96.

On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts/risks to be managed to a level that is broadly acceptable.

**EPOs, PS and MC**

<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<p><b>EPO 7</b></p> <p>No unplanned discharge of untreated sewage, greywater, putrescible wastes, bilge and deck drainage that is not in accordance with Marine Orders/ Woodside requirements.</p>	<p><b>C 7.1</b></p> <p>Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class) which includes the following requirements:</p> <ul style="list-style-type: none"> <li>• Maintenance of a Garbage Log Book</li> <li>• Discharge of putrescible waste not permitted within EP Operational Area (i.e. &lt;3NM from land).</li> <li>• Discharges of greywater permitted.</li> </ul>	<p><b>PS 7.1</b></p> <p>Survey vessels compliant with Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class).</p>	<p><b>MC 7.1.1</b></p> <p>Marine assurance records demonstrate survey vessels are compliant with Marine Order 95 – pollution prevention (as appropriate to vessel class).</p>
	<p><b>C 7.2</b></p> <p>Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class) which includes the following requirements:</p> <ul style="list-style-type: none"> <li>• a valid International Sewage Pollution Prevention Certificate, as required by vessel class.</li> </ul>	<p><b>PS 7.2</b></p> <p>Survey vessels compliant with Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class).</p>	<p><b>MC 7.2.1</b></p> <p>Marine assurance records demonstrate survey vessels are compliant with Marine Order 96 – pollution prevention – sewage (as appropriate to vessel class).</p>

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EPOs, PS and MC			
EPO	Controls	PS	MC
	<ul style="list-style-type: none"> <li>An AMSA-approved sewage treatment plant.</li> <li>a sewage comminuting and disinfecting system.</li> <li>a sewage holding tank sized appropriately to contain all generated waste (black and grey water).</li> <li>discharge of sewage which is not comminuted or disinfected to only occur at a distance of more than 12 NM from the nearest land.</li> <li>discharge of sewage which is comminuted or disinfected using a certified approved sewage treatment plant to only occur at a distance of more than 3 NM from the nearest land (i.e. outside of EP Operational Area).</li> <li>discharge of sewage to occur at a moderate rate while the support vessel is proceeding (&gt; 4 knots), to avoid discharges in environmentally sensitive areas.</li> </ul>		
	<p><b>C 7.3</b> Marine Order 91 – oil (as relevant to vessel class) requirements which includes mandatory measures for processing oily water before discharge, including:</p> <ul style="list-style-type: none"> <li>Shipboard Oil Pollution Emergency Plan (SOPEP)</li> <li>Machinery space bilge/oily water shall have IMO-approved</li> </ul>	<p><b>PS 7.3.1</b> Survey vessels deck drainage and bilge water discharges will comply with Marine Order 91 (Marine pollution prevention – oil) details expectations on first response and emergency management when a hydrocarbon spill has occurred.</p>	<p><b>MC 7.3.1</b> Marine assurance records demonstrate survey vessels comply with Marine Order 91 (Marine pollution prevention – oil) and has in place a current SOPEP (as appropriate to vessel class).</p>
		<p><b>PS 7.3.2</b></p>	<p><b>MC 7.3.2</b></p>

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EPOs, PS and MC			
EPO	Controls	PS	MC
	<p>oil filtering equipment (oil/water separator) with an on-line monitoring device to measure Oil in Water (OIW) content to be less than 15 ppm before discharge.</p> <ul style="list-style-type: none"> <li>• IMO-approved oil filtering equipment shall have an alarm and an automatic stopping device or be capable of recirculating if OIW concentration exceeds 15 ppm.</li> <li>• A deck drainage system shall be capable of controlling the content of discharges for areas at high risk of fuel/oil/grease or hazardous chemical contamination.</li> <li>• There shall be a waste oil storage tank available, to restrict oil discharges.</li> <li>• If machinery space bilge and deck drainage discharges cannot meet the oil content standard of &lt; 15 ppm without dilution or being treated by an IMO-approved oil/water separator, they will be contained onboard and disposed onshore.</li> <li>• Valid International Pollution Prevention Certificate.</li> </ul>	<p>Machinery space bilge/oily water will be discharged to meet the oil content standard of &lt; 15 ppm without dilution.</p>	<p>Environmental inspection records demonstrate maintained and up-to-date oil discharge records for survey vessels.</p>
	<p><b>C 7.4</b> Detergents used for deck wash on survey vessels will be biodegradable and phosphate free.</p>	<p><b>PS 7.4</b> Survey vessels compliant with MARPOL 73/78 Annex V - Garbage. Survey vessel deck wash</p>	<p><b>MC 7.4.1</b> Environmental inspection records demonstrate survey vessels use only biodegradable and phosphate free detergents.</p>

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
		detergents will be biodegradable and phosphate free.	

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## 6.6 Unplanned Activities (Accidents, Incidents, Emergency Situations)

### 6.6.1 Accidental Hydrocarbon Release: Vessel Collision

Context													
Survey Vessels - <b>Section 3.6</b>		Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b> Protected Species - <b>Section 4.6</b> Key Ecological Features - <b>Section 4.7</b> Protected Places - <b>Section 4.8</b> Socio-economic Environment - <b>Section</b>					Consultation - <b>Section 5</b>						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Loss of hydrocarbons to marine environment due to a vessel collision (e.g. other survey vessels or other marine users)	X	X		X	X	X	A	D	1	M	LCS GP PJ	Broadly Acceptable	EPO 13
Description of Source of Impact													

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**Background**

The PGGAP will involve primarily one survey vessel undertaking each activity, though allowance for two survey vessels in the Operational Areas at any one time is provided. Support vessels are not proposed as part of the survey and vessel transfer activities are not planned during this survey (except in an emergency).

The worst case credible hydrocarbon release would be breach of the survey vessel's largest fuel tank through collision with a third-party vessel. The total maximum inventory onboard the survey vessel is unknown as the vessel contracting has not been completed.

**Industry Experience**

Registered vessels or foreign flag vessels in Australian waters are required to report events to the Australian Transport Safety Bureau (ATSB), AMSA or Australian Search and Rescue (AusSAR).

From a review of the ATSB marine safety and investigation reports, one vessel collision occurred in 2011–2012 that resulted in a spill of 25–30 L of oil into the marine environment as a result of a collision between a tug and support vessel off Barrow Island. Two other vessel collisions occurred in 2010, one in the port of Dampier, where a support vessel collided with a barge being towed. Minor damage was reported and no significant injury to personnel or pollution occurred. The second 2010 collision involved a vessel under pilot control in a port colliding with a vessel alongside a wharf, causing it to sink. No reported pollution resulted from the sunken vessel. These incidents demonstrate the likelihood of only minor volumes of hydrocarbons being released during the event of a vessel collision.

From 2010 to 2011, the ATSB's annual publication defines the individual safety action factors identified in marine accidents and incidents: 42% related to navigation action (2011). Of those, 15% related to poor communication and 42% related to poor monitoring, checking and documentation. Most of these related to the grounding instances.

**Credible Scenarios**

For a vessel collision to result in the worst-case scenario of a hydrocarbon spill potentially impacting an environmental receptor, several factors must align:

The identified causes of vessel interaction must result in a collision.

The collision must have enough force to penetrate the vessel hull.

The collision must be in the exact location of the fuel tank.

The fuel tank must be full, or at least have a volume higher than the point of penetration.

The probability of the chain of events described above aligning, to result in a breach of fuel tanks resulting in a spill that could potentially affect the marine environment, is considered highly unlikely.

A collision between the survey vessel and a third party vessel (i.e. commercial shipping, other petroleum related vessels and commercial fishing vessels) was assessed as being credible, but highly unlikely given the standard vessel operations and equipment in place to prevent collision at sea, and the short duration of the activities.

Given the minimum water depths in the Operational Area, hydrocarbon release due to grounding is not considered credible, Credible scenarios are outlined in Table 5-11.

**Table 6-11: Details of identified hydrocarbon spill scenarios**

<b>Scenario</b>	<b>Likelihood</b>	<b>Credible</b>	<b>Volume (m<sup>3</sup>)</b>	<b>Justification</b>
Survey related vessel-to-vessel collision resulting in breach of the survey vessel's hull	N/A	Not credible	<182	Primarily one survey vessel will be operating in the Operational Areas at any one time. Considering the slow speeds travelled (~4 knots), breach of the survey vessel's hull is considered not credible.
Collision with third party vessel resulting in breach of the survey vessel's hull	Highly unlikely	Credible	<182	Third party vessels in the survey vicinity may be commercial shipping vessels which will be notified, by Notices to Mariners through AMSA, of the survey activity in the area.  All third party vessels operating in the vicinity will be tracked on radar and alerted (as required) to the presence of the survey vessel operations and therefore collision resulting in breach of the survey vessel's hull is considered highly unlikely
Vessel grounding resulting in breach	N/A	Not Credible	<182	Give the water depths of the Operational Areas, vessel grounding is not considered a credible scenario.

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of the survey vessel's hull				
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**Quantitative Hydrocarbon Risk Assessment**

Woodside has commissioned quantitative hydrocarbon spill modelling of two vessel collision scenarios at two different locations as detailed in Table 6-12. The volumes selected for modelling are based on the potential vessels that may be used and represent an instantaneous release.

**Table 6-12: Details of identified marine diesel spill scenarios modelled in vicinity of Operational Areas**

Location	Coordinates	Volume (m <sup>3</sup> )	Justification
Wilcox	20° 00' 41.06"S 115° 30' 50.30"E	182	Closest point to Montebello Islands (modelling already completed for another Woodside activity)
TPA03 wellsite	19° 45' 43.618" S 115° 53' 23.986" E	250	Worst case tank size volume for the proposed activity is 182m <sup>3</sup> , however the modelling was already completed for another Woodside activity in the vicinity Close to Operational A and B

The Wilcox location is within the boundary of the Montebello Marine Park Multiple Use Zone.

The modelling assessed the extent of a marine diesel spill volume of 182m<sup>3</sup> for all seasons, using an historic sample of wind and current data for the region. The modelling was conducted by RPS using a three-dimensional hydrocarbon spill trajectory and weathering model (SIMAP, Spill Impact Mapping and Analysis Program) (RPS, 2023).

**Hydrocarbon Characteristics**

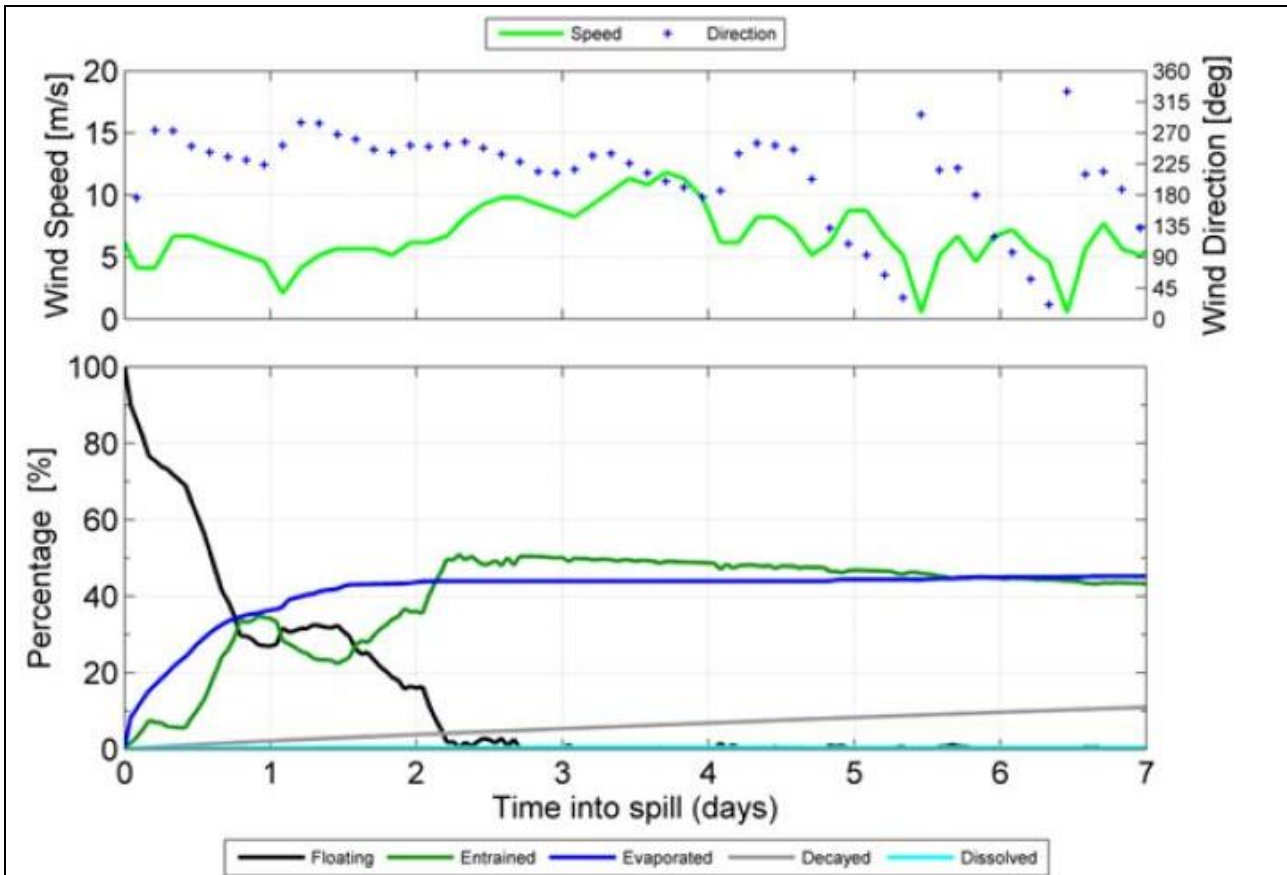
Marine diesel is a mixture of both volatile and persistent hydrocarbons. Predicted weathering of marine diesel, based on typical conditions in the region, indicates that about 50% by mass would be expected to evaporate over the first day or two (Figure 5-1). After this time, most of the remaining hydrocarbon is entrained into the upper water column. In calm conditions, entrained hydrocarbons are likely to resurface. Up to 95% of the spill volume is expected to evaporate over time (Figure 5-1). The remaining 5% is persistent and will reduce in concentration through degradation and dissolution.

Given the environmental conditions experienced in the region, marine diesel is expected to undergo rapid spreading. This, together with evaporative loss, is likely to result in the spill rapidly dissipating. Marine diesel distillates tend not to form emulsions at the temperatures found in the region. The characteristics of the marine diesel used in the modelling are given in Table 5-12.

**Table 6-13: Characteristics of the marine diesel used in the modelling**

Hydrocarbon type	Initial density (g/cm <sup>3</sup> ) at 25°C	Viscosity (cP @ 25°C)	Component BP (°C)	Volatiles < 180	Semi volatiles 180–265	Low volatility (%) 265–380	Residual (%) > 380
				Non-Persistent			Persistent
Marine diesel (surrogate for marine gas oil)	0.829	4.0	% of total	6	34.6	54.4	5

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**Figure 6-1: Proportional mass balance plot representing weathering of a surface spill of marine diesel as a one-off release (50 m<sup>3</sup> over 1 hr) and subject to variable wind at 27 °C water temperature and 25 °C air temperature**

**Impact Assessment**

**Environmental Value(s) Potentially Impacted**

**Environment that May Be Affected**

Surface Hydrocarbons: The probability contour figures for floating hydrocarbons indicate that concentrations equal to or greater than the 1 g/m<sup>2</sup> and 10 g/m<sup>2</sup> thresholds are less than 1% probability for all receptors for both scenarios except for the Montebello Marine Park.

Floating hydrocarbons at concentrations equal to or greater than 10 g/m<sup>2</sup> is not forecast to contact any of the assessed shoreline receptors for either scenario (Table 6-19). Floating oil at 10 g/m<sup>2</sup> present in open waters up to 50 km from spill location.

Entrained Hydrocarbons: Entrained oil at concentrations equal to or greater than the 100 ppb threshold is predicted to be found up to around 346 km from the spill site in the worst case scenario (Wilcox). Contact by entrained hydrocarbons at concentrations equal to or greater than 100 ppb is predicted at Montebello AMP (51%), Ningaloo AMP (2%) Barrow Island MP (2%) and the Ningaloo Coast WH (2%). Any other receptor potentially contacted is <0.5% and not discussed further.

The maximum entrained oil concentration forecast for any receptor is predicted to be 37,833 ppb at Montebello MP. The probabilities and concentrations are lower than this for the TPA03 location.

Dissolved Hydrocarbons: Dissolved aromatic hydrocarbons at concentrations equal to or greater than the 50 ppb threshold are predicted to be found up to 160 km from the spill site. Contact by dissolved hydrocarbons at concentrations equal to or greater than 100 ppb is predicted at Montebello AMP (12.5%) and Ningaloo Marine Park (18%) from the Wilcox location. All other receptors potentially contacted with probabilities of equal to or less than 2% (Table 6-19).

Accumulated Hydrocarbons: Accumulated hydrocarbons above threshold concentrations (≥100 g/m<sup>2</sup>) were not predicted by the modelling to occur at any location.

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**Table 6-14: Probability of hydrocarbon spill contact above impact thresholds within the EMBA with key receptor locations and sensitivities for a 182 m<sup>3</sup> Instantaneous release of marine diesel**

Environmental setting	Location / name	Environmental, Social, Cultural, Heritage and Economic Aspects presented as per the Environmental Risk Definitions (Woodside's Risk Management Procedure)																					Probability of hydrocarbon contact and fate (%)											
		Physical		Biological														Socioeconomic and Cultural					Note: the probability is based on stochastic modelling of 100 hypothetical worst-case spills under a variety of weather and metocean conditions											
		Water Quality	Sediment Quality	Marine Primary Producers			Other Communities / Habitats				Protected Species							Other Species	Fisheries – commercial	Fisheries – traditional	Tourism and Recreation	Protected Areas / Heritage – European and Indigenous / Underwater Cultural Heritage	Offshore Oil and Gas Infrastructure (topside and subsea)	Socio-cultural EMBA		Ecological EMBA								
				Open water – (pristine)	Open water – (pristine)	Coral reef	Seagrass beds / Macroalgae	Mangroves	Spawning/nursery areas	Open water – Productivity/upwelling	Non-biogenic reefs	Offshore filter feeders and/or deepwater benthic communities	Nearshore filter feeders	Sandy shores	Estuaries / tributaries / creeks / lagoons (including mudflats)	Rocky shores	Cetaceans – migratory whales							Cetaceans – dolphins and porpoises	Dugongs	Pinnipeds (sea lions and fur seals)	Marine turtles (foraging and interesting areas and significant nesting beaches)	Sea snakes	Whale sharks	Sharks and rays	Seabirds and/or migratory shorebirds	Pelagic fish populations	Resident /Demersal Fish	Surface hydrocarbon (1-10 g/m <sup>2</sup> )
Offshore	Montebello AMP	✓	✓	✓			✓	✓						✓	✓			✓	✓	✓	✓	✓	✓		✓	✓			100	NA	100	51	12.5	NA
	Ningaloo AMP	✓	✓	✓			✓	✓						✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓			-	-	-	2	-	-
	Gascoyne AMP	✓	✓											✓	✓			✓	✓	✓	✓	✓	✓		✓	✓	✓		-	-	-	1	-	-
Islands	Montebello Islands (including State Marine Park, Hermite Islands)	✓	✓	✓	✓	✓	✓						✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓			-	-	-	0.5	-	-	
	Barrow Island (including State Nature Reserves, State Marine Park and Marine Management Area and Boodie and Middle Islands and NR)	✓	✓	✓	✓		✓	✓					✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		-	-	-	2	-	-	

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Pilbara Islands – Southern Islands (Great Sandy, North Sandy, Airlie, Passage, Peak, Serrurier, Thevenard and Bessieres Islands – including State Nature Reserves)	✓	✓		✓		✓		✓			✓		✓		✓	✓		✓	✓		✓	✓		-	-	-	0.5	-	-	
Muiron Islands (WHA, State Marine Park)	✓	✓	✓	✓		✓	✓		✓		✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓		-	-	-	0.5	-	-
Ningaloo Coast (North, Middle & South; WHA, and State Marine Park)	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		-	-	-	2	18	-

**Summary of Potential Impacts to Protected Species, Other Habitats and Communities, Water Quality and Socio-economic Values**

The potential impacts of spilled hydrocarbons to species (protected and otherwise), marine primary producers, other habitats and communities, water quality, marine sediment quality, air quality, protected areas and socio-economic values are described below. It is noted that the toxic components in marine diesel include alkylated naphthalenes which can be rapidly accumulated by marine biota including invertebrates such as marine oysters, clams, shrimp, as well as a range of vertebrates, such as finfish. Marine diesel also contains additives that contribute to its toxicity.

Given the localised area of the potential EMBA and the rapid dispersion, dilution and weathering of a marine diesel spill, it is expected that any potential impacts will be low magnitude and temporary in nature.

**Protected Species - Marine Mammals**

Marine mammals that have direct physical contact with surface, entrained or dissolved aromatic hydrocarbons may suffer surface fouling or ingestion of hydrocarbons and inhalation of toxic vapours. This may result in the irritation of sensitive membranes such as the eyes, mouth, digestive and respiratory tracts and organs, impairment of the immune system or neurological damage (Helm et al., 2015). If prey (fish and plankton) are contaminated, this can result in the absorption of toxic components of the hydrocarbons (PAHs). In a review of cetacean observations in relation to a number of large scale hydrocarbon spills, Geraci (1988) found little evidence of mortality associated with hydrocarbon spills, however, behavioural disturbance (i.e. avoiding spilled hydrocarbons) was observed in some instances for several species of cetacean. This suggests that cetaceans have the ability to detect and avoid surface slicks.

Cetaceans that may interact with spilled hydrocarbons are most likely to be subject to physical impacts. Given cetaceans maintain thick skin and blubber, external exposure to hydrocarbons may result in irritation to skin and eyes. Entrained hydrocarbons may also be ingested, particularly by baleen whales which feed by filtering large volumes of water.

As identified in Section 4.6, protected species including migrating pygmy blue whales and humpback whales may be encountered near the Operational Areas, and therefore could be impacted in close proximity to the marine diesel spill location, where the volatile, water soluble and most toxic components of the diesel may be present. However, the window for exposure to hydrocarbons with the potential for any toxicity effects in these waters would be limited to a few days following the spill. Potential impacts may include behavioural impacts (e.g. avoidance of impacted areas), sub-lethal biological effects (e.g. skin irritation, irritation from ingestion or inhalation, reproductive failure) and, in rare circumstances, organ or neurological damage leading to death. Given the absence of critical habitats or aggregation areas, cetaceans in the area are expected to be transient, and impacts are expected to be limited to individuals or small groups of animals. Impact on the overall population viability of cetaceans are not predicted.

**Protected Species - Marine Turtles**

Adult sea turtles exhibit no avoidance behaviour when they encounter hydrocarbon spills (National Oceanic and Atmospheric Administration, 2010). Contact with entrained (or floating) hydrocarbon can result in hydrocarbon adherence to body surfaces (Gagnon and Rawson, 2010) causing irritation of mucous membranes in the nose, throat and eyes leading to inflammation and infection (National Oceanic and Atmospheric Administration, 2010). Oiling can also irritate and injure skin which is most evident on pliable areas such as the neck and flippers (Lutcavage et al., 1995). A stress response associated with this exposure pathway includes an increase in the production of white blood cells, and even a short exposure to hydrocarbons may affect the functioning of their salt gland (Lutcavage et al. 1995).

Hydrocarbons in surface waters may impact turtles when they surface to breathe and inhale toxic vapours. Their breathing pattern, involving large 'tidal' volumes and rapid inhalation before diving, results in direct exposure to petroleum vapours which are the most toxic component of the hydrocarbon spill (Milton and Lutz, 2003). This can lead to lung damage and congestion, interstitial emphysema, inhalant pneumonia and neurological impairment (National Oceanic and Atmospheric Administration, 2010). Contact with entrained hydrocarbons can result in hydrocarbon adherence to body surfaces (Gagnon and Rawson, 2010) causing irritation of mucous membranes in the nose, throat and eyes leading to inflammation and infection (Gagnon and Rawson, 2010). Given the hydrocarbon is expected to weather rapidly when released to the environment, relatively fresh entrained hydrocarbons (which are typically relatively close to the release location) are considered to have the greatest potential for impact.

The EMBA overlaps with habitat critical to the survival of flatback turtles for internesting and BIAs identified in Section 4.6.2, particularly the internesting BIAs for flatback turtles which extend for ~80 km from known nesting locations. Operational Area A also overlaps with an internesting buffer BIA for flatback turtles and is approximately 34 km from designated habitat critical to the survival of flatback turtles for internesting at the

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Montebello Islands (with peak nesting in December and January). However, it is noted that the BIA and habitat critical to the survival of flatback turtles are considered very conservative as they are based on the maximum range of interesting females and many turtles are more likely to remain near their nesting beaches. In the event of a worst case vessel spill of MDO, there is a potential that surface and entrained hydrocarbons exceeding impact threshold concentrations (10 g/m<sup>2</sup> and 100 ppb respectively) will be present in offshore waters extending up to 55 km and 160 km respectively, from the release site. Toxicity of hydrocarbons will be significantly reduced by weathering at over such distances, with the volatile and water soluble (often the most toxic) components expected to have dissipated beyond the vicinity of the spill site. Dissolved aromatic hydrocarbons at concentrations equal to or greater than the 50 ppb threshold are predicted to be limited to the vicinity of the spill site. Low concentrations are only capable of causing sublethal impacts to the most sensitive marine organisms and no lethal or sub-lethal impacts to marine turtles are expected in the BIAs. The potential for lethal and sub-lethal impacts to marine turtles is limited to small numbers of transient individuals that may be present in offshore waters near the release location.

#### **Protected Species - Birds**

Seabirds and migratory birds are particularly vulnerable to contact with floating hydrocarbons, which may mat feathers. This may lead to hypothermia from loss of insulation and ingestion of hydrocarbons when preening to remove hydrocarbons; both impacts may result in mortality (Hassan and Javed, 2011). The modelled scenario results in highly localised floating hydrocarbons below impact thresholds centred around the release location; hence, the potential for seabird exposure to floating hydrocarbons is considered to be low. Migratory shorebirds are unlikely to interact with spilled hydrocarbons; refer to the sections on Islands and Mainland Coast below for a discussion on the potential impacts to migratory shorebirds.

Offshore waters are potential foraging grounds for seabirds associated with the coastal roosting and nesting habitat, which includes the numerous islands along the Pilbara coast. Seabirds may also be exposed to marine diesel on the sea surface or upper water column, if resting or foraging in waters near to the spill. Impacts may include mortality due to oiling of feathers or the ingestion of hydrocarbons. However, due to the limited spatial extent of a marine diesel spill and limited window for exposure, population level impacts are not expected.

#### **Protected Species - Sharks**

Other protected species that may occasionally transit through the area and may potentially be exposed to a marine diesel spill, include shark and ray species such as whale sharks. Impacts to sharks and rays may occur through direct contact with hydrocarbons and contaminate the tissues and internal organs either through direct contact or via the food chain (consumption of prey). As gill breathing organisms, sharks and rays may be vulnerable to toxic effects of dissolved hydrocarbons (entering the body via the gills) and entrained hydrocarbons (coating of the gills inhibiting gas exchange). In the offshore environment, it is probable that pelagic shark species are able to detect and avoid surface waters underneath hydrocarbon spills by swimming into deeper water or away from the affected areas. Therefore, any impact on sharks and rays is predicted to be minor and localised.

Hydrocarbon contact may affect whale sharks through ingestion (entrained/dissolved hydrocarbons), particularly if feeding. Whale sharks may transit offshore waters when migrating to and from Ningaloo Reef, where they aggregate for feeding from March to July. The EMBA overlaps the whale shark foraging BIA along the Northwest shelf, but does not overlap the foraging (high density prey) BIA along the Ningaloo coast. Should sharks or fish be present in offshore waters near the Operational Area during the spill, direct impacts may occur if foraging within surface slicks or in the upper 20 to 30 m of the water column containing entrained hydrocarbons and dissolved aromatics. Contamination of their food supply and the subsequent ingestion of this prey may also result in long term impacts as a result of bioaccumulation. Impacts are again predicted to be limited to a small number of animals given the low numbers of animals that may transit through the area during the short period when spilled hydrocarbons are present.

Given the limited number of animals that may be impacted and the rapid dispersion of marine diesel, it is considered that any potential impacts will be minor.

#### **Other Habitats, Species and Communities**

Within the EMBA for a marine diesel spill resulting from a vessel collision, there is the potential for plankton communities to potentially be impacted where entrained or dissolved hydrocarbon threshold concentrations are exceeded. A range of lethal and sublethal impacts may occur to plankton exposed to entrained or dissolved hydrocarbons within the EMBA. Communities are expected to recover quickly (weeks/months) due to high population turnover (ITOPF, 2011a). It is therefore considered that any potential impacts would be low magnitude and temporary in nature.

Pelagic fish populations in the open water offshore environment of the EMBA are highly mobile and have the ability to move away from a marine diesel spill. The spill-affected area would be confined to the surface layer and upper 20 to 30 m of the water column. It is therefore unlikely that fish populations would be exposed to

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widespread hydrocarbon contamination. Pelagic fish populations are distributed over a wide geographical area so impacts on populations or species level are considered to be negligible. Combined with these factors and the rapid dispersion of marine diesel, it is considered that any potential impacts will be minor.

Other communities (e.g. demersal fish, benthic infauna and epifauna) and key sensitivities (e.g. KEFs identified in Section 4.7) occur within the EMBA, however they will not be directly exposed or impacted by a marine diesel spill as hydrocarbons are confined to the upper layers of the water column.

**Water Quality**

It is likely that water quality will be reduced at the release location of the spill; however, such impacts to water quality would be temporary and localised in nature due to the rapid dispersion and weathering of marine diesel. The potential impact is therefore expected to be low.

**Protected Areas**

Surface entrained and dissolved hydrocarbons at or exceeding impact thresholds have a low probability of contacting the Montebello AMP and the Ningaloo AMP. Surface and entrained hydrocarbons are mostly only predicted within the deep open waters of these protected areas, with no contact to seabed habitats or to shorelines above the ecological impact threshold values. Potential impacts to water quality and the natural values (e.g. mobile protected species) in these areas would be temporary and localised in nature due to the rapid dispersion and weathering of the marine diesel, as described above.

**Socio-economic**

A marine diesel spill is considered unlikely to cause significant direct impacts on the target species fished by Commonwealth and State fisheries (see Section 4.10.1) which overlap with the EMBA. The fisheries that operate within the EMBA predominantly target demersal fish species (demersal finfish and crustaceans) that inhabit waters in the range of >60–200 m depth, or pelagic species which are highly mobile. Therefore, a marine diesel spill is expected to only result in negligible impacts, considering that hydrocarbons are confined to the upper layers of the water column. Visible surface hydrocarbons at or exceeding 1 g/m<sup>2</sup> may also occur up to 82 km from the release site, which may result in fouling of fishing gear and a perception of impacts to fish stocks by fisheries stakeholders and the public. There is the potential that a fishing exclusion zone would be applied in the area of the spill, which would put a temporary ban on fishing activities and therefore potentially lead to subsequent economic impacts on commercial fishing operators if they were planning to fish within the area of the spill. Such measures would likely be in place for less than a week and would not result in widespread or long term impacts to fishing activities.

**Summary of potential impacts to environmental values**

In the event of an unplanned hydrocarbon release to the marine environment due to vessel collision, it is considered that any potential impact would be localised and temporary in nature to water quality (in comparison to background levels and/or international standards) with localised and temporary impacts to habitats, populations and fishing concerns.

The greatest environmental consequence identified when assessing an unplanned hydrocarbon release to the marine environment due to vessel collision, is defined as D, which equates to 'Minor, short-term impact (1–2 years) on species, habitat (but not affecting ecosystems function), physical or biological attributes'.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>34</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				

34 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>34</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
Marine Order 30 (prevention of collisions) 2016, including: adherence to steering and sailing rules including maintaining lookouts (e.g. visual, hearing, radar, etc.), proceeding at safe speeds, assessing risk of collision and taking action to avoid collision (monitoring radar) adherence to navigation light display requirements, including visibility, light position/shape appropriate to activity adherence to navigation noise signals as required.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of interference with other marine users resulting in a collision.	Controls based on legislative requirements – must be adopted.	Yes <b>C 1.1</b>
Apply Marine Order 21 (Safety of navigation and emergency procedures) 2012.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of interfering with other marine users and resulting in a collision.	Controls based on legislative requirements – must be adopted.	Yes <b>C 1.2</b>
Apply Marine Order 91 (Marine pollution prevention – oil) 2006.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release including vessel maintenance requirements. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.3</b>
Apply the Oil Pollution First Strike Plan (Appendix I).	F: Yes CS: Minimal Cost. Standard Practice	Implementing the oil pollution response control measures will reduce the consequence of impacts resulting from hydrocarbon discharges to the environment. No change to likelihood.	Controls based on legislative requirements – must be adopted.	Yes <b>C 12.1</b>

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>34</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Good Practice</b>				
Have a support vessel on standby during survey activities to communicate with third-party vessels and help maintain an exclusion zone.	F: Yes. CS: Additional costs.	Given the legislative controls in place and the duration of the activity, using a support vessel will provide only a small reduction in the likelihood of a collision with a third party vessel and potentially add further collision risk.	Grossly disproportionate.	No
Develop SIMOPS plan if more than one Woodside contracted vessel is operating in the Operational Area at any time.	F: Yes. CS: Minimal cost. Standard practice.	SIMOPS plans between Woodside operated vessels in the Operational Area will reduce the likelihood of a collision occurring.	Benefits outweigh cost/sacrifice.	Yes <b>C 13.1</b>
Notify AHO, PPA and DoT of activities and movements prior to the survey vessel being on location.	F: Yes. CS: Minimal cost. Standard practice.	Notifying AHO, PPA and DoT will enable them to update maritime charts and notify other mariners of survey activities, thereby reducing the likelihood of a collision with a third party vessel.	Benefits outweigh cost/sacrifice. Control is also Standard Practice and notification was requested during consultation (Appendix F).	Yes <b>C 1.1</b>
Notify AMSA JRCC of activities and movements.	F: Yes. CS: Minimal cost. Standard practice.	Communicating the PGGAP to other marine users ensures they are informed and aware should emergency response be required.	Benefits outweigh cost/sacrifice. Control is also standard practice and notification was requested during consultation (Appendix F).	Yes <b>C 1.2</b>
Apply Woodside Marine Offshore Vessel Assurance Procedure.	F: Yes CS: Minimal cost. Standard Practice.	Assurance activities outlined in procedure will reduce the likelihood of a vessel collision or vessel grounding event.	Control based on internal company requirements – must be adopted.	Yes <b>C 13.2</b>
<b>Professional Judgement – Eliminate</b>				
Eliminate use of vessels.	F: No. The use of vessels is required to conduct the PGGAP. CS: Not considered – control not feasible.	Not considered – control not feasible.	Not considered – control not feasible.	No
<b>Professional Judgement – Substitute</b>				

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>34</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
Store all hydrocarbons and chemicals below-deck.	F: No. During operations, small volumes must be kept near activities and within equipment requiring hydrocarbons and chemicals, and can result in an increased risk of leaks from transfers via hose or smaller containers. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
Reduce the volumes of hydrocarbons stored onboard the vessel.	F: Yes. CS: Volumes of required hydrocarbons for survey activities are already very small in scale. Onboard storage is less risky, costly and time consuming than associated transport and lifting operations from a supply vessel to survey vessel.	No reduction in likelihood or consequence since chemicals will still be required to enable activities to occur.	Disproportionate. The cost/sacrifice outweigh the benefit gained.	No
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b> On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential risks associated with an unplanned hydrocarbon release from a vessel collision. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.				

**Demonstration of Acceptability**

**Acceptability Statement:**

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The impact assessment has determined that an unplanned loss of hydrocarbon as a result of a vessel collision represents a low current risk rating that is unlikely to result in potential impact greater than localised, minor and temporary disruption to a small proportion of the population, and no impact on critical habitat or activity. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are consistent with the most relevant regulatory guidelines and good survey practice/industry best practice.

On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers risks to be managed to a level that is broadly acceptable.

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 13</b> No release of hydrocarbons to the marine environment due to a vessel collision associated with the activity.	<b>C 1.1</b> Refer to Section 6.5.1	<b>PS 1.1</b> Refer to Section 6.5.1	<b>MC 1.1.1</b> Refer to Section 6.5.1
	<b>C 1.2</b> Refer to Section 6.5.1	<b>PS 1.2</b> Refer to Section 6.5.1	<b>MC 1.2.1</b> Refer to Section 6.5.1
	<b>C 7.3</b> Refer to Section 6.5.7	<b>PS 7.3</b> Refer to Section 6.5.7	<b>MC 7.3.1</b> Refer to Section 6.5.7
	<b>C 12.1</b> Refer to Section 6.6.5	<b>PS 12.1</b> Refer to Section 6.6.5	<b>MC 12.1.1</b> Refer to Section 6.6.5
	<b>C 13.1</b> SIMOPS plan will be developed if more than one Woodside contracted vessel is operating in the same Operational Area at any one time.	<b>PS 13.1</b> SIMOPS outline operating procedures when more than one Woodside-contracted vessel is operating in the same Operational Area.	<b>MC 13.1.1</b> SIMOPS plan developed and in place for circumstances where more than one Woodside vessel is operating in the same Operational Area.
	<b>C 1.1</b> Refer to Section 6.5.1	<b>PS 1.1</b> Refer to Section 6.5.1	<b>MC 1.1.1</b> Refer to Section 6.5.1
	<b>C 1.2</b> Refer to Section 6.5.1	<b>PS 1.2</b> Refer to Section 6.5.1	<b>MC 1.2.1</b> Refer to Section 6.5.1
<b>C 13.2</b> Woodside Marine Offshore Assurance Procedure which details requirements for all vessels, including: Ensure Operation in sufficient water depth. Operation by qualified navigators/masters Use of most recent marine charts	<b>PS 13.1</b> Woodside Vessel Marine Assurance Process conducted before contracting vessel, to ensure suitability and compliance with procedure requirements and suitable emergency preparedness verification.	<b>MC 13.1</b> Marine assurance records demonstrate compliance.	

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### 6.6.2 Physical Presence: Vessel Collision with Marine Fauna

Context													
Project Vessels - <b>Section 3.6</b>				Protected species - <b>Section 4.6</b>				Consultation - <b>Section 5</b>					
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Accidental collision between project vessel and threatened and migratory marine fauna					X		A	E	1	L	LCS GP	Broadly Acceptable	EPO 9
Description of Source of Impact													
<p>The project vessels operating in and around the Operational Areas may present a potential hazard to cetaceans and other protected marine fauna such as whale sharks and marine turtles. Vessel movements can result in collisions between the vessel (hull and propellers) and marine fauna, potentially resulting in superficial injury, serious injury that may affect life functions (e.g. movement and reproduction), or mortality.</p> <p>The factors that contribute 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), the type of animal potentially present and their behaviours. Project vessels are typically moving at low speeds when conducting geophysical and geotechnical survey activities.</p>													
Impact Assessment													
Environmental Value(s) Potentially Impacted													
<p>The likelihood of vessel/marine fauna collision being lethal is influenced by vessel speed; the greater the speed at impact, the greater the risk of mortality (Jensen and Silber, 2004; Laist et al., 2001). Vanderlaan and Taggart (2007) found that the chance of lethally injuring a large whale due to a vessel strike increases from about 20% at 8.6 knots to 80% at 15 knots. According to the data of Vanderlaan and Taggart (2007), it is estimated that the risk is less than 10% at a speed of 4 knots. Vessel-whale collisions at this speed are uncommon and, based on reported data contained in the US National Ocean and Atmospheric Administration database (Jensen and Silber, 2004), there are only two known instances of collisions when the vessel was travelling at less than 6 knots. Both of these were from whale watching vessels that were deliberately placed among whales.</p> <p>Project vessels are likely to be travelling less than 5 knots in the Operational Areas; therefore, the chance of a vessel colliding with protected species and resulting in a lethal outcome is reduced.</p> <p>The nearest recognised BIAs for cetaceans (considered to be at risk due to relatively slow movement and proportion of time spent at or near the sea surface) is the humpback whale migration BIA which lies approximately 5 km SSE of Operational Area A (refer to Section 4.6.3). The pygmy blue whale migration BIA also lies beyond the Operational Areas (approximately 22 km (at its closest point) NW of Operational Area A. Adverse interactions between vessels and humpback or pygmy blue whales are considered to be unlikely due to the slow speeds of project vessels within the Operational Areas (mostly &lt;5 knots), and the distance of the Operational Areas from these known BIAs. However, the likelihood of encountering individuals increases during migration periods (June-November).</p>													

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Whale sharks are at risk from vessel strikes when feeding at the surface or in shallow waters (where there is limited option to dive). Whale sharks may traverse offshore NWS waters including the Operational Areas during their migrations to and from Ningaloo Reef and a BIA for foraging whale sharks overlaps with the Operational Areas. However, it is expected that whale shark presence within the Operational Areas would not comprise of significant numbers given there is no main aggregation area within the vicinity of the Operational Areas, and their presence would be transitory and of a short duration. There are no constraints preventing whale sharks moving away from vessels (e.g. shallow water or shorelines).

With consideration of the absence of potential turtle nesting or foraging habitat (i.e. no emergent islands, reef habitat) but the presence of shallow shoals and the water depth 20 -190 m, it is considered that the Operational Areas are unlikely to represent important habitat for marine turtles other than in the areas around the shallower shoals. It is acknowledged, however, that there are significant nesting sites along the WA mainland coast and islands of the region and that turtles may occur within the Operational Areas in low numbers. There is an interesting buffer BIA for the flatback turtle and flatback turtle habitat critical buffer zone which overlap Operational Area A, which is associated with the Montebello Islands (see Section 4.6.2). The Montebello Islands themselves are located ~34 km south of Operational Area A, this interesting area is a spatially assigned buffer for marine turtles nesting at the Montebello Islands. Therefore, it is unlikely that flatback turtles nesting at the Montebello Islands will be found to aggregate in significant numbers more than 34 km away from the Montebello Islands, within the Operational Areas. Notably, the typical response from turtles on the surface to the presence of vessels is to dive (a potential “startle” response), which decreases the risk of collisions (Hazel et al. 2007). As with cetaceans, the risk of collisions between turtles and vessels increases with vessel speed (Hazel et al. 2007). Given the low speeds of vessels undertaking the PGGAP, along with the expected low numbers of turtles within the Operational Areas, interactions between vessels and turtles are considered to be highly unlikely.

Marine mammals and fish are at risk of mortality through being caught in thrusters during station-keeping operations (dynamic positioning). The risk of listed marine species getting caught in operating thrusters is unlikely, given the low presence of individuals, combined with the avoidance behaviour commonly displayed during dynamic positioning operations.

It is unlikely vessel movement associated with the PGGAP will significantly impact marine fauna populations, given the low presence of transiting individuals, expected avoidance behaviour commonly displayed by whales and turtles combined with the low operating speed of the survey vessels (generally less than 5 knots or stationary, unless operating in an emergency). Activities are considered unlikely to result in a consequence greater than slight short-term disruption to individuals or a small proportion of the population and anticipated to have no impact on critical habitat or activity supported by BIAs.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>35</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
EPBC Regulations 2000 - Part 8 Division 8.1 Interacting with cetaceans, including the following measures:  Project vessels will not travel greater than 6 knots within 300 m of a cetacean or turtle (caution zone) and not	F: Yes CS: Minimal cost. Standard practice.	Implementing these controls will reduce the likelihood of a collision occurring between a cetacean, whale shark or turtle. The consequence of a collision is unchanged.	Controls based on legislative requirements – must be adopted.	Yes <b>C 9.1</b>

35 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>35</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<p>approach closer than 100 m from a whale.</p> <p>Project vessels will not approach closer than 50 m for a dolphin or turtle and/or 100 m for a whale (with the exception of animals bow riding).</p> <p>If the cetacean or turtle shows signs of being disturbed, project vessels will immediately withdraw from the caution zone at a constant speed of less than 6 knots.</p> <p>Project vessels will not travel greater than 8 knots within 250 m of a whale shark and not allow the vessel to approach closer than 30 m of a whale shark.</p>				
<b>Good Practice</b>				
Vary the timing of the PGGAP to avoid whale migration and turtle breeding periods.	<p>F: No. Timing of activities is linked to project schedule. Timing of all activities is currently not determined, and due to vessel availability and operational requirements, undertaking activities during migration seasons may not be able to be avoided.</p> <p>CS: Not considered, control not feasible.</p>	Not considered, control not feasible.	Not considered, control not feasible.	No
<b>Professional Judgement – Eliminate</b>				
No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
The use of dedicated MFOs on the project vessel for the duration of each activity to	F: Yes, however vessel crews already maintain a constant watch during operations	Not considered, control not feasible.	Disproportionate. The costs/sacrifice outweighs the benefit gained.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)35</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
watch for whales and provide direction on and monitor compliance with Part 8 of the EPBC Regulations.	CS: Additional cost of MFOs beyond that required during surveys considered unnecessary.			
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential risks associated with potential vessel collision with protected marine fauna. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<b>Acceptability Statement:</b>
<p>The risk assessment has determined that, given the adopted controls, vessel collision with marine fauna represents a low current risk rating that is highly unlikely to result in a potential impact greater than slight, temporary disruption to a small proportion of the population, and no impact on critical habitat or activity. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are considered good survey practice/industry best practice and meet the requirements of Part 8 (Division 8.1) of the EPBC Regulations 2000.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts/risks to be managed to a level that is broadly acceptable.</p>

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 9</b> No vessel strikes with protected marine fauna (whales, whale sharks, turtles).	<b>C 3.1</b> Refer Section 6.5.3	<b>PS 3.1</b> Refer Section 6.5.3	<b>MC 3.1.1</b> Refer Section 6.5.3

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### 6.6.3 Physical Presence: Disturbance to Seabed from Dropped Objects and Equipment Loss

Context													
Geophysical Equipment Deployment - <b>Section 3.7</b> Geotechnical Equipment Deployment - <b>Section 3.7.2</b> Project Vessels - <b>Section 3.6</b>		Habitats and Biological Environment - <b>Section 4.5</b>				Consultation - <b>Section 5</b>							
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Accidental loss of significant geophysical or geotechnical equipment				X			A	F	1	L	LCS GP	Broadly Acceptable	EPO 10
Dropped objects resulting in seabed disturbance				X			A	F	1	L	LCS GP PJ	Broadly Acceptable	
Description of Source of Impact													
<p>While undertaking the activity, towed or submersible equipment may become detached and lost to the seabed, resulting in disturbance or damage to benthic habitat and/or cultural heritage on the seabed.</p> <p>In addition, there is the potential for objects to be dropped overboard from the project vessels to the marine environment. Objects that have been dropped during previous offshore projects include small numbers of personnel protective gear (e.g. glasses, gloves, hard hats), small tools (e.g. spanners), hardware fixtures. The spatial extent in which dropped objects can occur is restricted to the Operational Areas.</p>													
Impact Assessment													
Environmental Value(s) Potentially Impacted													
<p>In the unlikely event of loss of equipment or dropped objects to the marine environment, potential environmental effects are anticipated to include localised physical impacts on benthic habitats and possible heritage features on the Ancient Landscape. As a result of recovering any dropped objects, impacts to benthic habitats will be temporary in nature. However, if the object cannot be recovered due to health and safety, operational constraints or other factors, then the impact may be longer term or permanent. Impacts to heritage features may be temporary or permanent</p>													

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depending on the nature of the associated values. The areas potentially impacted will depend on the scenario, with equipment loss likely to impact a greater area compared to dropped objects.

The temporary or permanent loss of dropped objects into the marine environment is not likely to have a significant environmental impact on benthic habitats, as the benthic habitats associated with the sand/silt habitats comprising most of the Operational Areas are of low sensitivity and are broadly represented throughout the broader region (Section 4.5). Although there are areas of higher sensitivity associated with shoals survey activities are not planned over the shoals and therefore dropped objects over them is not credible. Given the types, size and frequency of dropped objects that could occur, it is unlikely that a dropped object would have a significant impact on the marine environment.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)36</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Apply Marine Order 30 (Prevention of Collisions).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of Collision with other marine users which could incur dropped objects overboard.	Controls based on legislative requirements – must be adopted.	Yes <b>C 1.1</b>
Apply Marine Order 21 (Safety of Navigational and Emergency Procedures).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of Collision with other marine users which could incur dropped objects overboard.	Controls based on legislative requirements – must be adopted.	Yes <b>C 1.2</b>
<b>Good Practice</b>				
Apply safe work procedures to prevent dropped objects from project vessel and during deployment and retrieval of geophysical/geotechnical equipment.	F: Yes. CS: Minimal cost. Standard practice.	By following these procedures, the likelihood of a dropped object event is reduced. No change in consequence will occur.	Benefits outweigh cost/sacrifice.	Yes <b>C 10.1</b>
Recover dropped objects and geophysical/geotechnical equipment, and relocate where safe	F: May not always be possible. Assessed case by case. CS: Potentially significant cost. Standard practice.	Occurs after a dropped object event; therefore, no change to the likelihood. Since the object may be recovered, a reduction	Benefits outweigh cost/sacrifice.	Yes <b>C 10.2</b>

### 36 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>36</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
and practicable to do so.		in consequence is possible.		
Include in vessel inductions the training and control measures for crew in dropped object prevention.	F: Yes. CS: Minimal cost. Standard practice.	By following these procedures, the likelihood of a dropped object event is reduced. No change in consequence will occur.	Benefits outweigh cost/sacrifice.	Yes <b>C10.3</b>
<b>Professional Judgement – Eliminate</b>				
No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential risks associated with seabed disturbance from dropped objects and/or equipment loss. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<p><b>Acceptability Statement:</b></p> <p>The risk assessment has determined that, given the adopted controls dropped objects and/or equipment loss will not result in a potential impact greater than minor and temporary disruption to a small area of the seabed, this would comprise a small proportion of the benthic population, and no impact on critical habitat or activity. Dropped objects within the Ancient Landscape could impact cultural heritage associated with this area, however, this would also comprise a small area. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are considered good survey practice/industry best practice.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts/risks to be managed to a level that is broadly acceptable.</p>

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 10</b> No incidents of dropped objects to marine environment greater than a consequence level F <sup>37</sup> during the Petroleum Activities Program.	<b>C 10.1</b> Safe work procedures to prevent dropped objects from project vessel and during deployment and retrieval of geophysical/geotechnical equipment.	<b>PS 10.1.1</b> Operational procedures will be in-place on board the vessel for deployment and retrieval of geophysical and geotechnical equipment.	<b>MC 10.1.1</b> Project Execution Plan confirms Safe Work procedures for deployment and retrieval of survey equipment are in place.
		<b>PS 10.1.2</b> Geotechnical design packs will be provided by the Contractor to demonstrate that geotechnical equipment rigging and supporting structures do not become overloaded during any phase of the geotechnical equipment deployment or recovery operations.	<b>MC 10.1.2</b> Geotechnical design pack is completed prior to geotechnical survey mobilisation.
	<b>C 10.2</b> Reasonable attempts made to recover objects lost overboard.	<b>PS 10.2</b> Any hazardous solid waste dropped to the marine environment will be recovered where safe and practicable to do so. Where safe and practicable for this activity, consider: <ul style="list-style-type: none"> <li>• risk to personnel to retrieve object</li> <li>• whether the location of the object is in recoverable water depths</li> <li>• the object's proximity to subsea infrastructure</li> <li>• ability to recover the object (i.e. nature of object, lifting equipment or ROV availability, and suitable weather).</li> </ul>	<b>MC 10.2.1</b> Incident reports detail the recovery attempt consideration and status of any hazardous waste lost to the marine environment.

37 Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors.'

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	<p><b>C 10.3</b> Vessel inductions include control measures and training for crew in dropped object prevention.</p>	<p><b>PS 10.3</b> Crew training/inductions, and job safety analyses where relevant, will include a component on preventing dropped objects to increase awareness of requirements.</p>	<p><b>MC 10.3.1</b> Records show training to minimise the potential for dropped objects is provided to the survey vessel(s) crew</p>

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### 6.6.4 Unplanned Discharges: Loss of Solid Hazardous and Non-hazardous Wastes/Equipment

Context													
Project Vessels - <b>Section 3.6</b>			Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>				Consultation - <b>Section 5</b>						
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Accidental loss of hazardous or non-hazardous wastes/ equipment to the marine environment		X		X	X		A	F	3	M	LCS GP	Broadly Acceptable	EPO 11
Description of Source of Impact													
<p>The project vessels will generate a variety of solid wastes including packaging and domestic wastes such as aluminium cans, bottles, paper and cardboard. Hence, there is the potential for solid wastes to be lost overboard to the marine environment. Woodside has not reported any significant loss of solid wastes to the marine environment during the past 12 months of geophysical and/or geotechnical operations. Equipment that has been recorded as being lost (primarily windblown or dropped overboard) have included the loss of a metal pole and hardhat. These have occurred during periods of adverse weather and incorrect waste storage.</p> <p>Marine debris has been identified as a threat to humpback whales, marine turtles, whale sharks and sawfish (Commonwealth of Australia 2015a, 2015b and 2003; Threatened Species Scientific Committee 2015).</p>													
Impact Assessment													
Environmental Value(s) Potentially Impacted													
<p>The potential impacts of solid wastes accidentally discharged to the marine environment include direct pollution and contamination of the environment. Secondary impacts relate to potential contact of marine fauna with wastes, resulting in entanglement or ingestion and leading to injury and death of individual animals. The temporary or permanent loss of waste materials into the marine environment is not likely to have a significant environmental impact, based on the types, size and frequency of wastes that could occur and species present.</p>													

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>38</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Apply Marine Order 95 – pollution prevention – garbage (as appropriate to vessel class).	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.1</b>
<b>Good Practice</b>				
Apply a Vessel Waste Management Plan.	F: Yes. CS: Minimal cost. Standard practice.	Controls outlined in the management plan will reduce the likelihood of an unplanned release. The consequence is unchanged.	Benefit outweighs cost sacrifice.	Yes <b>C 9.1</b>
Make reasonable attempts to recover solid wastes lost overboard.	F: Yes. CS: Minimal cost. Standard practice.	Occurs after an unplanned release of solid waste and therefore no change to the likelihood. Since the waste objects may be recovered, a reduction in consequence is possible.	Benefit outweighs cost sacrifice.	Yes <b>C 10.2</b>
<b>Professional Judgement – Eliminate</b>				
No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
No additional controls were identified.				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				

38 Qualitative measure

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Demonstration of ALARP				
Control Considered	Control Feasibility (F) and Cost/Sacrifice (CS) <sup>38</sup>	Benefit in Impact/Risk Reduction	Proportionality	Control Adopted
<p><b>ALARP Statement:</b></p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the potential risks associated with accidental discharge of solid waste to be ALARP. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

Demonstration of Acceptability
<p><b>Acceptability Statement:</b></p> <p>The risk assessment has determined that, given the adopted controls, accidental discharge of solid waste may result in impacts with no lasting effect and a short term localised impact in species, habitat (but not affecting ecosystem function), physical and biological attributes. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are considered good survey practice/industry best practice and meet legislative requirements (Marine Orders 94 and 95).</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts/risks to be managed to a level that is broadly acceptable.</p>

EPOs, PS and MC			
EPO	Controls	PS	MC
<p><b>EPO 11</b></p> <p>No unplanned releases of solid hazardous or non-hazardous waste to the marine environment greater than a consequence level of F<sup>39</sup> during the Petroleum Activities Program.</p>	<p><b>C 7.1</b></p> <p>Refer to Section 6.5.7</p>	<p><b>PS 7.1</b></p> <p>Refer to Section 6.5.7</p>	<p><b>MC 7.1.1</b></p> <p>Refer to Section 6.5.7</p>
	<p><b>C11.1</b></p> <p>The Vessel Waste Management Plan includes requirements for waste to ensure no waste is lost to the marine environment, including:</p> <ul style="list-style-type: none"> <li>Records shall be maintained of all waste to be disposed, treated or recycled. They shall include quantity and type of waste, and</li> </ul>	<p><b>PS 11.1</b></p> <p>Hazardous and non-hazardous waste will be managed in accordance with the Vessel Waste Management Plan.</p>	<p><b>MC 11.1.1</b></p> <p>Environment inspection records demonstrate compliance against Vessel Waste Management Plan.</p>

<sup>39</sup> Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors.'

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	disposal/ recycle location. <ul style="list-style-type: none"> <li>• Waste streams shall be handled and managed according to their hazard and recyclability class.</li> <li>• All waste storage facilities in good working order and designed in such a way as to prevent or contain any discharges.</li> <li>• All hazardous wastes will be segregated prior to onshore disposal.</li> </ul>		
	<b>C 10.2</b> Refer to Section 6.6.3	<b>PS 10.2</b> Refer to Section 6.6.3	<b>MC 10.2.1</b> Refer to Section 6.6.3

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### 6.6.5 Unplanned Discharges: Deck, Subsea Spills from Geotechnical and Geophysical equipment

Context													
Geophysical Equipment Deployment - <b>Section 3.7</b> Geotechnical Equipment Deployment - <b>Section 3.7.2</b>		Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>				Consultation - <b>Section 5</b>							
Impact Evaluation Summary													
Source of Impact	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Accidental discharge to the ocean of other hydrocarbons/ chemicals/ geotechnical drilling fluids from survey vessel deck activities and equipment (e.g. cranes)	X	X			X		A	F	3	M	LCS GP PJ	Broadly Acceptable	EPO 12
Subsea release of hydraulic fluid from geotechnical and geophysical survey equipment	X	X			X		A	F	3	M	LCS GP PJ	Broadly Acceptable	
Description of Source of Impact													

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**Vessels**

Project vessels will need to store small quantities of lubricating oils and hydraulic fluid on the vessel, which have the potential to spill if not appropriately managed. Hydraulic fluid may also potentially be spilled from a leak in hoses or lines on hydraulic equipment such as cranes or winches. Deck spills can result from spills from stored hydrocarbons/chemicals (including those used during geotechnical activities for borehole drilling) or equipment. Due to the short duration of surveys, significant chemical/ fluid storage volumes are not anticipated. Storage areas are typically set up with effective primary and secondary bunding to contain any deck spills. Releases from equipment are predominantly from the failure of hydraulic hoses, which can either be located within bunded areas or outside of bunded or deck areas (e.g. over water on cranes).

Woodside's operational experience demonstrates that spills are most likely to originate from hydraulic hoses and have previously been less than 100 L, with an average volume < 10 L.

**Geotechnical Survey Equipment**

Project vessels will place equipment on the seabed which may contain relatively small volumes, about 5-10 L, depending on the system, of hydraulic fluid. The hydraulic fluid enables various mechanical functions to be performed.

Some of the equipment requiring the supply of hydraulic fluid includes sources such as PCPT. PCPT involves pushing a penetrometer (probe) into the seabed at a constant rate of penetration to continuously measure the resistance, friction and water pressure. There is the potential for hoses and seals associated with these systems to fail (i.e. hoses burst or crack) during operation, or leaks as a result of shifts in temperature or pressure can result in small volumes of hydraulic fluid being released to the marine environment. Geotechnical equipment is not designed to intentionally release hydraulic fluid in geotechnical operations. If equipment fails, there is the potential for less than 10 L to be released from the hydraulic source.

**Towed Equipment**

If a Chirp, Boomer, Sparker is used, the receiver will consist of individual hydrophone elements located within neutrally buoyant, synthetic hydrocarbon-filled tubing. They typically contain approximately 8 to 12 hydrophone elements evenly spaced in approximately 100 m long, 25 mm diameter tubes. The cable will hold about 5 L of hydrophone fluid. The hydrophone cable has the potential to be punctured, resulting in a leakage of fluid for a variety of reasons, including damage during deployment or retrieval.

**Impact Assessment**

**Environmental Value(s) Potentially Impacted**

Accidental spills of hydrocarbons or chemicals from the vessels and geotechnical and geophysical survey equipment will decrease the water quality in the immediate area of the spill. However, the impacts are expected to be temporary and very localised as only small volumes of hydrocarbons or chemicals are likely to be used which are expected to rapidly disperse and dilute in the marine environment.

Receptors such as marine fauna may be affected if they come in direct contact with a release (i.e. by traversing the immediate spill area). If marine fauna come into contact with a release, they could suffer fouling, ingestion, inhalation of toxic vapours, irritation of sensitive membranes in the eyes, mouth, digestive and respiratory tracts, and organ or neurological damage. Cetaceans may exhibit avoidance behaviour patterns and, given they are smooth skinned, hydrocarbons and other chemicals are not expected to adhere. Given the small area of the potential spill and the dilution and weathering of any spill, the likelihood of ecological impacts to marine fauna (protected species), other communities and habitats is likely to be slight.

No impacts on socio-economic receptors are expected, due to the small volumes of hydrocarbons/chemicals that could be accidentally spilled and the localised and temporary nature of the impacts.

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>40</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
Apply Marine Order 91 (Marine pollution prevention – oil) 2006.	F: Yes. CS: Minimal cost. Standard practice.	Legislative requirements to be followed reduce the likelihood of an unplanned release including vessel maintenance requirements. The consequence is unchanged.	Controls based on legislative requirements – must be adopted.	Yes <b>C 7.3</b>
Apply the Oil Pollution First Strike Plan (Appendix I).	F: Yes CS: Minimal Cost. Standard Practice	Implementing the oil pollution response control measures will reduce the consequence of impacts resulting from hydrocarbon discharges to the environment. No change to likelihood.	Controls based on legislative requirements – must be adopted.	Yes <b>C 12.1</b>
Chemicals will be stored safely to prevent the release to the marine environment.	F: Yes. CS: Minimal cost. Standard practice.	Implementing procedures for chemical storage and handling on the vessels will reduce the consequence of impacts resulting from discharges to the marine environment by ensuring chemicals have been assessed for environmental acceptability.	Controls based on legislative requirements – must be adopted.	Yes <b>C 12.2</b>
<b>Good Practice</b>				
Deck bunding and spill response kits	F: Yes CS: Minimal cost. Standard practice	Use of deck bunding and spill kits will reduce the likelihood and volume of deck spills of hazardous liquids from entering the marine environment.	Benefits outweigh cost/sacrifice	Yes <b>C 12.3</b>
<b>Professional Judgement – Eliminate</b>				

40 Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>40</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
No additional controls were identified.				
<b>Professional Judgement – Substitute</b>				
No additional controls were identified.				
<b>Professional Judgement – Engineered Solution</b>				
Store all hydrocarbons and chemicals below-deck.	F: No. During operations, small volumes must be kept near activities and within equipment requiring hydrocarbons and chemicals, and can result in an increased risk of leaks from transfers via hose or smaller containers. CS: Not considered, control not feasible.	Not considered, control not feasible.	Not considered, control not feasible.	No
Reduce the volumes of chemicals and hydrocarbons stored onboard the vessel.	F: Yes. CS: Volumes of required chemicals for survey activities are already very small in scale. Onboard storage is less risky, costly and time consuming than associated transport and lifting operations from a supply vessel to survey vessel.	No reduction in likelihood or consequence since chemicals will still be required to enable activities to occur.	Disproportionate. The cost/sacrifice outweigh the benefit gained.	No
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage potential risks associated with an unplanned minor discharge or hydrocarbons as a result of minor deck and subsea spills. As no reasonably practicable additional/alternative controls were identified that would further reduce the impacts without disproportionate sacrifice, the impacts/risks are considered ALARP.</p>				

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**Demonstration of Acceptability**

**Acceptability Statement:**

The risk assessment has determined that, given the adopted controls an unplanned minor discharge of hydrocarbons as a result of minor deck and subsea spills represents a low risk rating that is unlikely to result in potential impact greater than localised, and temporary disruption to a small proportion of the population, and no impact on critical habitat or activity. Further opportunities to reduce the impacts and risks have been investigated above. The adopted controls are consistent with the most relevant regulatory guidelines and good survey practice/industry best practice.

On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside's criteria for demonstrating acceptability (Section 2.6.2), Woodside considers risks to be managed to a level that is broadly acceptable.

<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 12</b> No unplanned spills to the marine environment from deck activities greater than a consequence level of F <sup>41</sup> during the Petroleum Activities Program.	<b>C 7.3</b> Refer to Section 6.5.7	<b>PS 7.3</b> Refer to Section 6.5.7	<b>MC 7.3.1</b> Refer to Section 6.5.7
	<b>C 12.1</b> First Strike Plan details expectations on first response and emergency management when a hydrocarbon spill has occurred.	<b>C 12.1</b> Compliance with controls outlined in the First Strike Plan in a hydrocarbon spill scenario.	<b>MC 12.1.1</b> Incident records in the event of a hydrocarbon spill scenario demonstrate response was undertaken in accordance with the First Strike Plan details.
	<b>C 12.2</b> Chemicals will be stored safely to prevent the release to the marine environment.	<b>PS 12.2</b> Liquid chemical and fuel storage areas are banded or secondarily contained when they are not being handled/moved temporarily.	<b>MC 12.2.1</b> Environment inspection records confirm all liquid chemicals and fuel are stored in banded/secondarily contained areas when not being handled/moved temporarily.
	<b>C12.3</b> Deck bunding and spill response kits on board vessels.	<b>PS 12.3</b> Spill response bins/kits are maintained and located in close proximity to hydrocarbon storage areas and vessel deck equipment for use to contain and recover deck spills.	<b>MC 12.3.1</b> Environment inspection records demonstrate spill response bins/kits are appropriately located and stocked, and regularly maintained.

41 Defined as 'No lasting effect (less than one month); localised impact not significant to environmental receptors.'

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### 6.6.6 Physical Presence: Introduction of Invasive Marine Species

Context													
Project Vessels - <b>Section 3.6</b>			Physical Environment - <b>Section 4.4</b> Habitats and Biological Communities - <b>Section 4.5</b>				Consultation - <b>Section 5</b>						
Risk Evaluation Summary													
Source of Risk	Environmental Value Potentially Impacted						Evaluation						
	Marine Sediment	Water Quality	Air Quality (incl Odour)	Ecosystems/ Habitat	Species	Socio-economic	Decision Type	Consequence/Impact	Likelihood	Risk Rating	ALARP Tools	Acceptability	Outcome
Invasive species in vessel ballast tanks or on vessels/submersible equipment				X	X	X	A	F	0	L	LC S GP PJ RB A CV SV	Broadly Acceptable	EPO 8
Description of Source of Risk													
<p><b>Vessel Operations</b></p> <p>During the PGGAP, vessels will be transiting to and from the Operational Areas, which may include traffic mobilising from beyond Australian waters.</p> <p>All vessels are subject to some level of marine fouling. Organisms attach to the vessel hull, particularly in areas where organisms can find a good attachment surface (e.g. seams, strainers and unpainted surfaces) or where turbulence is lowest (e.g. niches and sea chests). Commercial vessels typically maintain anti-fouling coatings to reduce the build-up of fouling organisms.</p> <p>Organisms can also be drawn into ballast tanks during onboarding of ballast water as cargo is loaded or to balance vessels under load.</p> <p><b>Submersible equipment</b></p> <p>The geophysical and geotechnical survey equipment will also be transported to and used within the Operational Areas. As there is the potential for the equipment to be used on other projects before being used on this activity, there is the potential for invasive marine species (IMS) translocation.</p> <p>During the PGGAP, project vessels and submersible equipment have the potential to introduce IMS to the Operational Areas through biofouling and ballast water exchange (as described above).</p>													
Consequence Assessment													
Environmental Value(s) Potentially Impacted													
Non-indigenous Marine Species (NIMS) have been introduced into a region beyond their natural biogeographic range and have the ability to survive, reproduce and establish founder populations. Not all NIMS introduced into an area will thrive or cause demonstrable impacts. Indeed, the majority of NIMS around the world are relatively benign and few													

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have spread widely beyond sheltered ports and harbours. Only a subset of NIMS that become abundant and impact on social/cultural, human health, economic and/or environmental values can be considered IMS.

Potential IMS have historically been introduced and translocated around Australia by various natural and human means including biofouling and ballast water. Potential IMS vary from one region to another depending on various environmental factors such as water temperature, salinity, nutrient levels and habitat type, which dictate their survival and invasive capabilities. IMS typically require hard substrate in the photic zone, therefore requiring shallow waters to become established.

Once introduced, IMS may prey on local species which had previously not been subject to this kind of predation, and therefore not have evolved protective measures against the attack. They may outcompete indigenous species for food, space or light and can also interbreed with local species, creating hybrids so the endemic species is lost. These changes to the local marine environment result in changes to the natural ecosystem.

IMS have also proven economically damaging to areas where they have been introduced and established. Such impacts include direct damage to assets (fouling of vessel hulls and infrastructure) and depletion of commercially harvested marine life (e.g. shellfish stocks). IMS have proven particularly difficult to eradicate from areas once established. If the introduction is detected early, eradication may be effective but is likely to be expensive, disruptive and, depending on the method of eradication, harmful to other local marine life.

Survey vessels and submersible equipment have the potential to introduce IMS into the Operational Areas. Due to the shallow water depths in some areas, settlement and establishment of IMS is credible, albeit remote, given control measures in place.

**Summary of Potential Impacts to Environmental Value(s)**

In support of Woodside’s assessment of the impacts and risks of IMS introduction associated with the PGGAP, risk and impact evaluations of the different aspects of marine pest translocation associated with the activity are undertaken. The results of this assessment are presented in the table below. As a result of this assessment Woodside has presented the highest potential consequence as a E (Slight) and likelihood as Remote (0), resulting in an overall Low risk following the implementation of identified controls.

**Table 6-15: Credibility, consequence and likelihood of introducing IMS**

<b>IMS Introduction Location</b>	<b>Credibility of Introduction</b>	<b>Consequence of Introduction</b>	<b>Likelihood</b>
Introduced to Operational Areas/ Transfer of IMS from infected vessel to Operational Area A establishment on the seafloor or subsea structures	Credible There is the potential for IMS to be transferred to the shallow shoal areas in Operational area A	Environment – Not Credible The translocation of IMS from a colonised project vessel to shallower environments via natural dispersion is not considered credible given the vessels are not expected to directly interact with the shoals within the Operational Areas and distances of the Operational Areas to shallow nearshore environments is greater than 12 nm (~35 km). There is therefore no credible environmental risk and the assessment is limited to Woodside’s reputation. Reputation – E If IMS were to establish on a project vessel this could potentially impact the vessel operationally through the fouling of	Remote (0) Spread of marine pests via ballast water or spawning in these open ocean environments is also considered remote. Survey vessels are not planned to directly interact with shoals within Operational Area A.
Introduced to Operational Areas and establishment on a project vessel.	Credible There is potential for the transfer of marine pests between project vessels within the Operational Areas.		Remote (0) Spread of marine pests via ballast water or spawning in these open ocean environments is also considered remote.

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		<p>intakes, result in translocation of an IMS into the Operational Areas and, depending on the species, potentially transfer of an IMS to other project vessels, which would likely result in the quarantine of the vessel until eradication could occur (through cleaning and treatment of infected areas), which would be costly to perform.</p> <p>Such introduction would be expected to have slight impact to Woodside's reputation, particularly with Woodside's contractors, and would likely have a reputational impact on future proposals.</p>	
Transfer between project vessels and from project vessels to other marine environments beyond the Operational Areas	<p>Not Credible</p> <p>This risk is considered so remote that it is not credible for the purposes of the assessment.</p> <p>The transfer of a marine pest between project vessels is considered remote, given the offshore open ocean environment (i.e. transfer pathway discussed above).</p> <p>For a marine pest to then establish a mature spawning population on the new project vessel (which would have been through Woodside's IMS process) and then transfer to another environment is not considered credible.</p> <p>Operational Areas where the vessels will operate are located offshore in an oceanic environment, which is uncongenial to the long term survival of IMS. In the event of a vessel to vessel transfer (considered remote), the marine pest would need to become established on a new vessel with good hygiene (i.e. passed Woodside's vessel IMS risk assessment), survive the transport beyond the Operational Areas, transfer and become established again elsewhere. This scenario is not considered to be credible.</p>		

<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>42</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
<b>Legislation, Codes and Standards</b>				
All vessels will exchange or treat ballast water using an approved ballast water	F: Yes CS: Minimal cost. Standard practice.	Using an approved ballast water treatment system will reduce the likelihood of	Controls based on legislative requirements under the <i>Biosecurity</i>	Yes <b>C 8.1</b>

<sup>42</sup> Qualitative measure

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>42</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
treatment system, as specified in the Australian Ballast Water Management Requirements.		transferring marine pests between vessels within the Operational Areas. No change in consequence would occur.	Act 2015 – must be adopted.	
<b>Good Practice</b>				
Apply Woodside’s IMS risk assessment process <sup>43</sup> to survey vessels which enter the Operational Areas. Based on the objectives of each IMS risk assessment, implement management measures commensurate with the risk (such as the treating internal systems, IMS inspections or cleaning) to minimise the likelihood of IMS being introduced.	F: Yes CS: Minimal cost. Standard practice.	The IMS risk assessment process will identify potential risks and additional controls implemented accordingly. In doing so, the likelihood of transferring marine pests between vessels within the Operational Areas is reduced. No change in consequence would occur.	Benefits outweigh cost/sacrifice.	Yes <b>C 8.2</b>
<b>Professional Judgement – Eliminate</b>				
No discharge of ballast water during the PGGAP.	F: No. Ballast water discharges are critical for maintaining vessel stability. Given the nature of the PGGAP, the use of ballast (including the potential	Not assessed, control not feasible.	Not assessed, control not feasible.	No

<sup>43</sup> The correct management of IMS requires careful consideration of multiple complex factors. These range from an understanding of the vectors through which IMS can be introduced and spread, the maintenance and operational history of vessels and rigs proposed to be used, climatic conditions, existing baseline data of past and proposed transit and Operational Areas and consideration of different regulatory frameworks.

Woodside’s approach simplifies the management of IMS into a standardised toolkit that includes an IMS management plan, lists of ‘species of concern’, risk assessment score sheets, inspection procedures and a Contractor Information Pack to ensure the risk is managed in a simple and efficient manner. Woodside’s risk-based process also delivers continued value to Woodside by reducing the risk of project delays and increased operational costs, whilst delivering excellent marine biosecurity and environmental objectives.

Woodside’s approach has been validated through a proactive program that engaged relative persons during development of the methodology. This included Woodside personnel, scientific input and review by experienced external IMS consultants, recognised industry experts and liaison with regulatory agencies and vessel contractors. The result is a fit-for-purpose biofouling management process that is now embedded within Woodside’s marine systems, procedures and contractual requirements.

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>42</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	discharge of ballast water) is considered a safety critical requirement. CS: Not assessed, control not feasible.			
Eliminate use of vessels.	F: No. Given vessels must be used to implement project, there is no feasible means to eliminate the source of risk. CS: Loss of the project.	Not assessed, control not feasible.	Not assessed, control not feasible.	No
<b>Professional Judgement – Substitute</b>				
Source project vessels based in Australia only.	F: Potentially. Limiting activities to only use local project vessels could potentially pose a significant risk in terms of time to source a vessel, and the ability of the local vessels to perform the required tasks. While the project will attempt to source survey vessels locally, it is not always possible. Availability cannot always be guaranteed when considered competing oil and gas activities in the region. In addition, sourcing Australian own vessels will increase cost due to completion. CS: Significant cost and schedule impacts due to restrictions of vessel hire opportunities.	Sourcing vessels from within Australia will reduce the likelihood of introducing IMS from outside Australian waters. However, it does not reduce the likelihood of introducing species native to Australia but alien to the Operational Areas and NWMR, or of IMS that have established elsewhere in Australia. The consequence is unchanged.	Disproportionate. Sourcing survey vessels from Australian waters may reduce the likelihood of introducing IMS to the Operational Areas; however, the potential cost of implementing this control is grossly disproportionate to the minor environmental gain (or reducing an already remote likelihood of introducing IMS) potentially achieved by using only Australian based vessels. Consequently, this risk is considered not reasonably practicable.	No
Inspect all vessels for IMS.	F: Yes. Approach to inspect vessels could be feasible. CS: Significant cost and schedule impacts. In addition, Woodside's IMS risk assessment process is seen to be	Inspecting all vessels for IMS would reduce the likelihood of IMS being introduced to the Operational Areas. However, this reduction is unlikely to be significant, given the other control measures	Disproportionate. The cost/sacrifice outweighs the benefit gained, as other controls to be implemented achieve an ALARP position.	No

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<b>Demonstration of ALARP</b>				
<b>Control Considered</b>	<b>Control Feasibility (F) and Cost/Sacrifice (CS)<sup>42</sup></b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Control Adopted</b>
	more cost effective as this control allows Woodside to manage the introduction of marine pests through biofouling, while targeting its efforts and resources to areas of greatest concern.	implemented. No change in consequence would occur.		
<b>Professional Judgement – Engineered Solution</b>				
<b>Risk Based Analysis</b>				
N/A				
<b>Company Values</b>				
N/A				
<b>Societal Values</b>				
N/A				
<b>ALARP Statement:</b>				
<p>On the basis of the environmental risk assessment outcomes, use of relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1), and Woodside’s criteria for demonstrating ALARP (Section 2.6.1), Woodside considers the adopted controls appropriate to manage the impacts and risks of IMS introduction and establishment. As no reasonable additional/alternative controls were identified that would further reduce the impacts and risks without grossly disproportionate sacrifice, the impacts and risks are considered ALARP.</p>				

<b>Demonstration of Acceptability</b>
<b>Acceptability Statement:</b>
<p>The risk assessment has determined that, given the adopted controls, introduction of IMS represent a low risk rating that is remote likelihood to result in a consequence greater than slight short-term impact on marine communities within the Operational Areas. Further opportunities to reduce the impacts and risks have been investigated above.</p> <p>On the basis of the assessment outcomes, use of the relevant tools appropriate to the decision type (i.e. Decision Type A; Section 2.5.2.1) and Woodside’s criteria for demonstrating acceptability (Section 2.6.2), Woodside considers impacts/risks to be managed to a level that is broadly acceptable</p>

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
<b>EPO 13</b> No introduction and establishment of invasive marine species into the Operational Area as a result of the Petroleum Activities Program.	<b>C 13.1</b> All vessels will exchange or treat ballast water using an approved ballast water treatment system option, as specified in the Australian Ballast Water Management Requirements.	<b>PS 13.1</b> Prevents the translocation of IMS within the vessel's ballast water from high risk locations to the PGGAP.	<b>MC 13.1</b> Ballast Water Records System maintained by vessels which verifies compliance against Australian Ballast Water Management Requirements.
	<b>C 13.2</b> Internationally sourced project vessels will manage their biosecurity risk associated with biofouling as specified in the Australian Biofouling Management Requirements.	<b>PS 13.2</b> Compliance with Australia Biofouling Management Requirements.	<b>MC 13.2</b> Woodside Invasive Marine Species Vessel and Equipment Questionnaire details ballast water management and internal biofouling treatment systems.
	<b>C 13.3</b> Woodside's IMS risk assessment process <sup>44</sup> will be applied to the project vessels and relevant immersible equipment undertaking the PGGAP. Assessment will consider these risk factors: For vessels: <ul style="list-style-type: none"> <li>• vessel/ type</li> <li>• recent IMS inspection and cleaning history, including for internal niches</li> <li>• out-of-water period before mobilisation</li> <li>• age and suitability of antifouling coating at mobilisation date</li> <li>• internal treatment systems and history</li> <li>• origin and proposed area of operation</li> </ul>	<b>PS 13.3.1</b> Before entering the PGGAP, project vessels, and relevant immersible equipment are determined to be low risk of introducing IMS of concern and maintain this low risk status to mobilisation.	<b>MC 13.3.1</b> IMS risk assessment records maintained for all project vessels and relevant immersible equipment entering the PGGAP or IMS management area to undertake the PGGAP.
		<b>PS 13.3.2</b> In accordance with Woodside's IMS risk assessment process, the IMS risk assessments will be undertaken by an authorised environment adviser who has completed relevant Woodside IMS training or by qualified and experienced IMS inspector.	<b>MC 13.3.2</b> IMS risk assessments records show assessment undertaken by an Environment Adviser or IMS inspector (as relevant).

<sup>44</sup> Woodside's IMS risk assessment process was developed with regard to the national biofouling management guidelines for the petroleum production and exploration industry and guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species (IMO Guidelines, 2011).

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<b>EPOs, PS and MC</b>			
<b>EPO</b>	<b>Controls</b>	<b>PS</b>	<b>MC</b>
	<ul style="list-style-type: none"> <li>• number of stationary/slow speed periods &gt;7 days</li> <li>• region of stationary or slow periods</li> <li>• type of activity – contact with seafloor.</li> </ul> <p>For submersible equipment:</p> <ul style="list-style-type: none"> <li>• region of deployment since last thorough clean, particularly coastal locations</li> <li>• duration of deployments</li> <li>• duration of time out of water since last deployment</li> <li>• transport conditions during mobilisation</li> <li>• post-retrieval maintenance regime.</li> </ul> <p>Based on the outcomes of each IMS risk assessment, management measures commensurate with the risk (such as treating internal systems, IMS inspections or cleaning) will be implemented to minimise the likelihood of IMS being introduced.</p>		

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## 6.7 Recovery Plan and Threat Abatement Assessment

As described in Section 1.8.2.1, NOPSEMA will not accept an EP that is inconsistent with a recovery plan or threat abatement plan for a listed threatened species or ecological community. This section describes the assessment that Woodside has undertaken to demonstrate that the PGGAP is not inconsistent with any relevant recovery plans or threat abatement plans. For the purposes of this assessment, the relevant Part 13 statutory instruments (recovery plans and threat abatement plans) are:

- Recovery Plan for Marine Turtles in Australia 2017–2027 (Commonwealth of Australia, 2017).
- Conservation Management Plan for the Blue Whale 2015–2025 (Commonwealth of Australia, 2015a).
- Recovery Plan for the Grey Nurse Shark (*Carcharias taurus*) 2014 (Commonwealth of Australia, 2014).
- Sawfishes and River Sharks Multispecies Recovery Plan (Commonwealth of Australia, 2015b).
- Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans 2018 (Commonwealth of Australia, 2018).

Table 6-16 lists the objectives and (where relevant) the action areas of these plans, and also describes whether these objectives/action areas are applicable to government, the Titleholder, and/or the PGGAP. For those objectives/action areas applicable to the PGGAP, the relevant actions of each plan have been identified, and an evaluation has been conducted as to whether impacts and risks resulting from the activity are clearly inconsistent with that action or not. The results of this assessment against relevant actions are presented in Table 6-17 to Table 6-21.

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**Table 6-16: Identification of applicability of recovery plan and threat abatement plan objectives and action areas**

EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	PGGAP
<b>Marine Turtle Recovery Plan</b>			
Long-term Recovery Objective: Minimise anthropogenic threats to allow for the conservation status of marine turtles to improve so they can be removed from the EPBC Act threatened species list	Y	Y	Y
<b>Interim Recovery Objectives</b>			
Current levels of legal and management protection for marine turtle species are maintained or improved, both domestically and throughout the migratory range of Australia's marine turtles	Y		
The management of marine turtles is supported	Y		
Anthropogenic threats are demonstrably minimised	Y	Y	Y
Trends in nesting numbers at index beaches and population demographics at important foraging grounds are described	Y	Y	
<b>Action Areas</b>			
A. Assessing and addressing threats			
A1. Maintain and improve efficacy of legal and management protection	Y	Y	Y
A2. Adaptively manage turtle stocks to reduce risk and build resilience to climate change and variability	Y		
A3. Reduce the impacts of marine debris	Y	Y	Y
A4. Minimise chemical and terrestrial discharge	Y	Y	Y
A5. Address international take within and outside Australia's jurisdiction	Y		
A6. Reduce impacts from terrestrial predation	Y		
A7. Reduce international and domestic fisheries bycatch	Y		
A8. Minimise light pollution	Y	Y	Y
A9. Address the impacts of coastal development/infrastructure and dredging and trawling	Y	Y	
A10. Maintain and improve sustainable Indigenous management of marine turtles	Y		

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	PGGAP
B. Enabling and measuring recovery			
B1. Determine trends in index beaches	Y	Y	N
B2. Understand population demographics at key foraging grounds	Y		
B3. Address information gaps to better facilitate the recovery of marine turtle stocks	Y	Y	N
<b>Blue Whale Conservation Management Plan</b>			
Long-term recovery objective: Minimise anthropogenic threats to allow for their conservation status to improve so that they can be removed from the EPBC Act threatened species list	Y	Y	Y
<b>Interim Recovery Objectives</b>			
The conservation status of blue whale populations is assessed using efficient and robust methodology	Y		
The spatial and temporal distribution, identification of biologically important areas, and population structure of blue whales in Australian waters is described	Y	Y	Y
Current levels of legal and management protection for blue whales are maintained or improved and an appropriate adaptive management regime is in place	Y		
Anthropogenic threats are demonstrably minimised	Y	Y	Y
<b>Action Areas</b>			
A. Assessing and addressing threats			
A.1: Maintain and improve existing legal and management protection	Y		
A.2: Assessing and addressing anthropogenic noise	Y	Y	Y
A.3: Understanding impacts of climate variability and change	Y		
A.4: Minimising vessel collisions	Y	Y	Y
B. Enabling and Measuring Recovery			
B.1: Measuring and monitoring population recovery	Y		

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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	PGGAP
B.2: Investigating population structure	Y		
B.3: Describing spatial and temporal distribution and defining biologically important habitat	Y	Y	Y
<b>Grey Nurse Shark Recovery Plan</b>			
<b>Overarching Objective</b>			
To assist the recovery of the grey nurse shark in the wild, throughout its range in Australian waters, with a view to: improving the population status, leading to future removal of the grey nurse shark from the threatened species list of the EPBC Act ensuring that anthropogenic activities do not hinder the recovery of the grey nurse shark in the near future, or impact on the conservation status of the species in the future	Y	Y	Y
<b>Specific Objectives</b>			
Develop and apply quantitative monitoring of the population status (distribution and abundance) and potential recovery of the grey nurse shark in Australian waters	Y		
Quantify and reduce the impact of commercial fishing on the grey nurse shark through incidental (accidental and/or illegal) take, throughout its range	Y		
Quantify and reduce the impact of recreational fishing on the grey nurse shark through incidental (accidental and/or illegal) take, throughout its range	Y		
Where practicable, minimise the impact of shark control activities on the grey nurse shark	Y		
Investigate and manage the impact of ecotourism on the grey nurse shark	Y		
Manage the impact of aquarium collection on the grey nurse shark	Y		
Improve understanding of the threat of pollution and disease to the grey nurse shark	Y	Y	N
Continue to identify and protect habitat critical to the survival of the grey nurse shark and reduce the impact of threatening processes within these areas	Y	Y	
Continue to develop and implement research programs to support the conservation of the grey nurse shark	Y	Y	
Promote community education and awareness in relation to grey nurse shark conservation and management	Y		
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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	PGGAP
<b>Sawfish and River Sharks Recovery Plan</b>			
<b>Primary Objective</b>			
To assist the recovery of sawfish and river sharks in Australian waters with a view to: improving the population status leading to the removal of the sawfish and river shark species from the threatened species list of the EPBC Act ensuring that anthropogenic activities do not hinder recovery in the near future, or impact on the conservation status of the species in the future	Y	Y	Y
<b>Specific Objectives</b>			
Reduce and, where possible, eliminate adverse impacts of commercial fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of recreational fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of Indigenous fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate the impact of illegal, unregulated and unreported fishing on sawfish and river shark species	Y		
Reduce and, where possible, eliminate adverse impacts of habitat degradation and modification on sawfish and river shark species	Y	Y	Y
Reduce and, where possible, eliminate any adverse impacts of marine debris on sawfish and river shark species noting the linkages with the Threat Abatement Plan for the Impact of Marine Debris on Vertebrate Marine Life	Y	Y	Y
Reduce and, where possible, eliminate any adverse impacts of collection for public aquaria on sawfish and river shark species	Y		
Improve the information base to allow the development of a quantitative framework to assess the recovery of, and inform management options for, sawfish and river shark species	Y		
Develop research programs to assist conservation of sawfish and river shark species	Y	Y	
Improve community understanding and awareness in relation to sawfish and river shark conservation and management	Y		
<b>Marine Debris Threat Abatement Plan</b>			
<b>Objectives</b>			
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EPBC Act Part 13 Statutory Instrument	Applicable to:		
	Government	Titleholder	PGGAP
Contribute to long-term prevention of the incidence of marine debris	Y	Y	
Understand the scale of impacts from marine plastic and microplastic on key species, ecological communities and locations	Y	Y	Y
Remove existing marine debris	Y		
Monitor the quantities, origins, types and hazardous chemical contaminants of marine debris, and assess the effectiveness of management arrangements for reducing marine debris	Y		
Increase public understanding of the causes and impacts of harmful marine debris, including microplastic and hazardous chemical contaminants, to bring about behaviour change	Y		

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**Table 6-17: Assessment against relevant actions of the Marine Turtle Recovery Plan**

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Marine Turtle Recovery Plan	Action Area A1: Maintain and improve efficacy of legal and management protection	Action: Manage anthropogenic activities to ensure marine turtles are not displaced from identified habitat critical to the survival	Refer to Section 6.6.3, 6.6.4, 6.6.5 and 6.6.2  Not inconsistent assessment: The assessment of acoustic emissions, light emissions and potential vessel collisions has considered the potential impacts to marine turtles. Management of the Petroleum Activities Program will ensure that marine turtles are not displaced from identified habitat critical to the survival of marine turtles.	EPO 3, EPO 4, EPO 5 and EPO 9  C 3.1, C5.1  EPS 3.1, EPS 5.1
		Action: Manage anthropogenic activities in Biologically Important Areas to ensure that biologically important behaviour can continue	Refer to Section 6.6.3, 6.6.4, 6.6.5 and 6.6.2 Not inconsistent assessment: The assessment of acoustic emissions, light emissions and potential vessel collisions has considered the potential impacts to marine turtles. Management of the Petroleum Activities Program will ensure that biologically important behaviour can continue in BIAs.	EPO 3, EPO 4, EPO 5 and EPO 9  C 3.1, C5.1  EPS 3.1, EPS 5.1

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	<p>Action Area A3: Reduce the impacts from marine debris</p>	<p>Action: Support the implementation of the Marine Debris Threat Abatement Plan (TAP)</p> <p>Priority actions at stock level:</p> <p>Green Turtle North West Shelf (G-NWS) – Understand the threat posed to this stock by marine debris</p> <p>Loggerhead turtle Western Australia (LH-WA) – Determine the extent to which marine debris is impacting loggerhead turtles</p> <p>Flatback turtle-Pilbara (F-Pil) &amp; hawksbill turtle Western Australia (H-WA) – no relevant actions</p>	<p>Refer Section 6.6.4</p> <p>Not inconsistent assessment: The assessment of the accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to marine turtles. Controls have been implemented to reduce the likelihood of accidental release of solid wastes for the duration of the PGGAP.</p>	<p>N/A</p>
	<p>Action Area A4: Minimise chemical and terrestrial discharge</p>	<p>Action: Ensure spill risk strategies and response programs adequately include management for marine turtles and their habitats, particularly in reference to 'slow to recover habitats', e.g. nesting habitat, seagrass meadows or coral reefs</p> <p>Priority actions at stock level:</p> <p>G-NWS – Ensure that spill risk strategies and response programs include management for turtles and their habitats</p> <p>LH-WA &amp; F-Pil – Ensure that spill risk strategies and response programs include management for turtles and their habitats, particularly in reference to slow to recover habitats, e.g. seagrass meadows or corals</p> <p>H-WA – no relevant actions</p>	<p>Refer Sections 6.6.1 and 6.6.5</p> <p>Not inconsistent assessment: The assessment of accidental release of chemicals / hydrocarbons has considered the potential risks to marine turtles. Spill risk strategies and response program include management measures for turtles and their nesting habitats.</p>	<p>Refer Section 7.10</p>

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	<p>Action Area A8: Minimise light pollution</p>	<p>Action: Artificial light within or adjacent to habitat critical to the survival of marine turtles will be managed such that marine turtles are not displaced from these habitats</p> <p>Priority actions at stock level: G-NWS – as above LH-WA – no relevant actions</p> <p>-Pil &amp; H-WA – Manage artificial light from onshore and offshore sources to ensure biologically important behaviours of nesting adults and emerging/dispersing hatchlings can continue</p>	<p>Refer Section 6.5.5</p> <p>Not inconsistent assessment: The assessment of light emissions has considered the potential impacts to green, flatback and hawksbill turtles. Internesting, mating, foraging or migrating turtles are not impacted by light from offshore vessels.</p> <p>Vessel light emissions could cause localised and temporary behavioural disturbance to isolated transient individuals, which is unlikely to result in displacement of adult turtles from internesting or nesting habitat critical to the survival of marine turtles.</p>	<p>N/A</p>
	<p>Action Area B1: Determine trends at index beaches</p>	<p>Action: Maintain or establish long-term monitoring programs at index beaches to collect standardised data critical for determining stock trends, including data on hatchling production</p> <p>Priority actions at stock level:</p> <p>G-NWS – Continue long-term monitoring of index beaches</p> <p>LH-WA – Continue long-term monitoring of nesting and foraging populations</p> <p>F-Pil &amp; H-WA – no relevant actions</p>	<p>Not inconsistent assessment: Woodside contributes to Action Area B1 via its support of the Ningaloo Turtle Program<sup>45</sup>.</p>	<p>N/A</p>

45 [http://www.ningalooturtles.org.au/media\\_reports.html](http://www.ningalooturtles.org.au/media_reports.html)



	<p>Action Area B3: Address information gaps to better facilitate the recovery of marine turtle stocks</p>	<p>Action: Understand the impacts of anthropogenic noise on marine turtle behaviour and biology                  Priority actions at stock level:                  G-NWS – Given this is a relatively accessible stock that is likely to be exposed to anthropogenic noise – Investigate the impacts of anthropogenic noise on turtle behaviour and biology and extrapolate findings from the North West Shelf stock to other stocks                  LH-WA – no relevant actions F-Pil – no relevant actions                  H-WA – investigate mixed stock genetics at foraging grounds</p>	<p>Refer Section 6.5.3 and 6.5.4                  Not inconsistent assessment: The assessment of acoustic emissions has considered the potential impacts to marine turtles. Survey equipment and project vessel acoustic emissions could cause localised and short- term behavioural disturbance to isolated transient individuals, which is unlikely to result in displacement of adult turtles from internesting or nesting habitat critical to the survival of marine turtles.</p>	<p>N/A</p>
<p><b>Assessment Summary</b>                  The Marine Turtle Recovery Plan has been considered during the assessment of impacts and risks, and the PGGAP is not considered to be inconsistent with the relevant actions of this plan.</p>				

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**Table 6-18: Assessment against relevant actions of the Blue Whale Conservation Management Plan**

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Blue Whale Conservation Management Plan	Action Area A.2: Assessing and addressing anthropogenic noise	Action 2: Assessing the effect of anthropogenic noise on blue whale behaviour  Action 3: Anthropogenic noise in biologically important areas will be managed such that any blue whale continues to use the area without injury, and is not displaced from a foraging area	Refer <b>Section 6.5.3</b>  Not inconsistent assessment: The assessment of acoustic emissions has considered the potential impacts to pygmy blue whales. Acoustic emissions from project vessels will not cause injury to any pygmy blue whale. There are no known or possible foraging areas for pygmy blue whales within or adjacent to the Operational Area. If the PGGAP within the Operational Area overlaps with an individual northbound or southbound migration, they may deviate slightly from the migratory route, but will continue on their migration.	N/A
	Action Area A.4: Minimising vessel collisions	Action 3: Ensure the risk of vessel strikes on blue whales is considered when assessing actions that increase vessel traffic in areas where blue whales occur and, if required, appropriate mitigation measures are implemented	Refer Section 6.6.2  Not inconsistent assessment: The assessment of vessel collision with marine fauna has considered the potential risks to pygmy blue whales. If the PGGAP within the Operational Area overlaps with an individual northbound or southbound migration, they may deviate slightly from the migratory route, but will continue on their migration. Vessel collisions with pygmy blue whales are highly unlikely to occur, given the very slow vessel speeds.	EPO 10 C 4.1 PS 4.1

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	Action Area B.3: Describing spatial and temporal distribution and defining biologically important habitat	Action 2: Identify migratory pathways between breeding and feeding grounds Action 3: Assess timing and residency within Biologically Important Areas	Not inconsistent assessment: Woodside contributes to Action Area B3 via its support of targeted research initiatives (e.g. satellite tracking of pygmy blue whale migratory movements <sup>46</sup> ).	N/A
<b>Assessment Summary</b>				
The Blue Whale Conservation Management Plan has been considered during the assessment of impacts and risks, and the PGGAP is not considered to be inconsistent with the relevant actions of this plan.				

**Table 6-19: Assessment against relevant actions of the Grey Nurse Shark Recovery Plan**

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Grey Nurse Shark Recovery Plan	Objective 7: Improve understanding of the threat of pollution and disease to the grey nurse shark	Action 7.1: Review and assess the potential threat of introduced species, pathogens and pollutants	Refer Sections 6.5.7, 6.6.1, 6.6.4, 6.6.5 and 6.6.6  Not inconsistent assessment: This EP includes an assessment of the impacts from accidental release of solid wastes as well, planned discharges from vessels on and the impact of introducing invasive marine species on listed marine species.	N/A

46 Double, M.C., Andrews-Goff, V., Jenner, K.C.S., Jenner, M.-N., Laverick, S.M., Branch, T.A., Gales, N.J., 2014. Migratory movements of pygmy blue whales (*Balaenoptera musculus brevicauda*) between Australia and Indonesia as revealed by satellite telemetry. *PLoS One* 9, e93578

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			Refer Sections 6.6.1 and 6.6.5. Not inconsistent assessment: The assessment of accidental release of chemicals / hydrocarbons has considered the potential risks to grey nurse sharks.	Section 7.10
<p>Assessment Summary</p> <p>The Grey Nurse Shark Recovery Plan has been considered during the assessment of impacts and risks, and the PGGAP is not considered to be inconsistent with the relevant actions of this plan.</p>				

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**Table 6-20: Assessment against relevant actions of the Sawfish and River Shark Recovery Plan**

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Sawfish and River Shark Recovery Plan	Objective 5: Reduce and, where possible, eliminate adverse impacts of habitat degradation and modification on sawfish and river shark species	Action 5c: Identify risks to important sawfish and river shark habitat and measures needed to reduce those risks	Refer Sections 6.6.5 and 6.6.1 Not inconsistent assessment: The assessment of accidental release of chemicals / hydrocarbons has considered the potential risks to sawfish and river shark.	Section 7.10
	Objective 6: Reduce and, where possible, eliminate any adverse impacts of marine debris on sawfish and river shark species	Action 6a: Assess the impacts of marine debris including ghost nets, fishing gear and plastics on sawfish and river shark species	Refer Section 6.6.4 Not inconsistent assessment: The assessment of the accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to sawfish. Controls have been implemented to reduce the likelihood of accidental release of solid wastes for the duration of the PGGAP.	N/A
<p>Assessment Summary</p> <p>The Sawfish and River Shark Recovery Plan has been considered during the assessment of impacts and risks, and the PGGAP is not considered to be inconsistent with the relevant actions of this plan.</p>				

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**Table 6-21: Assessment against relevant actions of the Marine Debris Threat Abatement Plan**

Part 13 Statutory Instrument	Relevant Action Areas/Objectives	Relevant Actions	Evaluation	EPO, Controls and PS
Marine Debris TAP	Objective 2: Understand the scale of marine plastic and microplastic impact on key species, ecological communities and locations	Action 2.04: Build understanding related to plastic and microplastic pollution	Refer Section <b>6.6.4</b> Not inconsistent assessment: The assessment of the accidental release of solid hazardous and non-hazardous wastes has considered the potential risks to the marine environment. Controls have been implemented to reduce the likelihood of accidental release of solid wastes for the duration of the PGGAP.	N/A
<p>Assessment Summary</p> <p>The Marine Debris TAP has been considered during the assessment of impacts and risks, and the PGGAP is not considered to be inconsistent with the relevant actions of this plan.</p>				

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## 6.8 First Nations Cultural Features and Heritage Values Assessment

As described in Section 4, the identification of cultural features and heritage values of the environment as well as the social, economic and cultural features important to First Nation’s people is integral to understanding the environment and any potential impacts and risks to the environment.

In line with Woodside’s First Nations Communities Policy (Woodside 2022), Woodside seeks to avoid damage or disturbance to cultural heritage (including intangible heritage) and, if avoidance is not possible, minimise and mitigate the impacts, in consultation with First Nation communities and Traditional Custodians. Please note that the First Nations Communities Policy is reviewed regularly and is updated as required. The First Nations Communities Policy is made available on our website, along with the other Board policies: <https://www.woodside.com/who-we-are/corporate-governance-and-policies> Mitigation can include any measure or control aimed at ensuring the viability of the intangible cultural heritage and its intergenerational transmission. This can include reducing impacts and risks to environmental features that are associated with intangible cultural heritage (UNESCO 2003; ICOMOS 2013).

It is important to note that not all topics raised by First Nations groups / individuals through consultation are considered values for the purpose of the cultural features and heritage values impact assessment below. A number of topics were raised in the context of a general interest in environmental management and ecosystem health (i.e., natural environment interest), where the group/individual was seeking further information about potential impacts and risks from the PGGAP on a receptor. As these interests relate to the maintenance of the natural environment, these are adequately addressed through impact and risk assessments described in Sections 6.5 and 6.6 respectively and not further assessed below.

Aspect	Cultural Features and Heritage Values
<b>Description of source impact/ risk (key aspects)</b>	<p><b><i>Physical presence of vessels</i></b></p> <p>To conduct the PGGAP, at least two project vessels will be present in the Operational Areas. The geophysical surveys are expected to take approximately 40 days to complete and the geotechnical surveys approximately 80 days to complete, this may occur as a single campaign or could be split over a number of campaigns (as defined in Section 3.5).</p> <p>Vessels do not plan to anchor within the Operational Areas during activities and instead maintain positioning using DP. The physical presence and movement of project vessels within the Operational Areas has the potential to displace other marine users. All vessels will display navigational lighting and external lighting on a 24-hour basis, as required for safe operations.</p> <p>No support vessels are required for survey activities and no permanent survey equipment is planned to be left on the seabed following completion of the PGGAP. Geophysical survey equipment is towed at a distance of approximately 3x the water depth from the stern and within the 500 m exclusion zone of the vessel. Geotechnical equipment is deployed near vertical and is therefore, in close proximity to the working vessel.</p> <p><b><i>Acoustic emissions from vessels and survey equipment</i></b></p> <p>Vessels and Operation of Dynamic Positioning Systems</p> <p>Project vessels will generate noise both in the air and underwater, due to operating thrusters, engines and moving propellers. These noises will contribute to and can exceed ambient noise levels, which range from around 90 dB re 1 µPa (root mean square sound pressure level (rms SPL)) under very calm, low wind conditions, to 120 dB re 1 µPa (rms SPL) under windy conditions (McCauley, 2005).</p> <p>Thruster noise (from cavitation caused by propellers) is typically the most significant noise source for vessels holding station, with other noise sources typically relatively minor (McCauley, 1998).</p> <p>Thruster noise is typically high intensity and broadband in nature. Project vessels will maintain position using main engines and / or thrusters (including use dynamic positioning systems) for short durations while the vessel is maintaining station prior to and during geotechnical surveying.</p>

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There is no applicable sound data available for a typical DP vessel; however, based upon past research, frequencies and sound levels are expected to be less than those from DP vessels. Near and far field underwater noise measurements were taken in 2011 for the MAERSK Discoverer Dynamic Positioning (DP) drill rig used on the North West Shelf. The rig DP system (similar to the system proposed for the survey vessels) emitted tonal signals between 200 Hz and 1.2 kHz, which is within the auditory band width of whales. The measured source level was between 176 and 186 dB re 1µPa @ 1 m.

Vessels may use DP while the vessel is maintaining position. McCauley (1998) measured underwater broadband noise equivalent to about 182 dB re 1 µPa at 1 m (rms SPL) from a support vessel holding station in the Timor Sea; it is expected that similar noise levels will be generated by vessel used for this PGGAP.

The physical presence of, and the underwater noise generated by project vessel operations has the potential to cause temporary and localised disturbance to marine fauna (e.g. displace or attract resulting in behavioural changes) in response to received continuous noise levels of 120 dB re 1 µPa (root square mean sound pressure level (RMS SPL)) (Southall et al., 2007).

**Geophysical survey activities**

Geophysical sources are used for bathymetric mapping and shallow sub-bottom profiling, penetrating to depths of about 60 m below the seabed. The geophysical surveys will use a range of sources (Table 3-3). Underwater sound produced by the geophysical and geotechnical survey instruments has the potential to affect marine fauna that may pass within close proximity to survey operations. There may be potential effects to habitats and ecosystems that have cultural significance (i.e. benthic invertebrate communities, planktonic communities, KEFs).

Refer to **Section 6.5.3** and **Section 6.5.4** for more details.

**Unplanned hydrocarbon release from vessel collision (basis of EMBA)**

The PGGAP will involve primarily one survey vessel undertaking each activity, though allowance for two survey vessels in the Operational Areas at any one time is provided. Support vessels are not proposed as part of the survey and vessel transfer activities are not planned during this survey (except in an emergency).

The worst case credible hydrocarbon release would be breach of the survey vessel's largest fuel tank through collision with a third-party vessel. The EMBA modelling assessed the extent of a marine diesel spill volume of 182m3 for all seasons, using an historic sample of wind and current data for the region. The modelling was conducted by RPS using a three-dimensional hydrocarbon spill trajectory and weathering model (SIMAP, Spill Impact Mapping and Analysis Program) (RPS, 2023) as described in **Section 6.6.1**.

Planned Activity Aspect	<i>The potential environmental impact from the PGGAP to species that have a cultural feature or heritage value have been summarised below to provide the context related cumulative impact on the cultural feature or heritage value.</i>						
Impact Significance Level							
Environmental impact assessment to marine species	Marine mammals	Marine reptiles	Fish	Seabirds	Coral	Seagrass	Mangroves
6.5.3 & 6.5.4 Routine Acoustic Emissions	Slight (E)	Negligible (F)	Negligible (F)	N/A	N/A	N/A	N/A
6.5.5 Routine Light Emissions: External Lighting on MODU and Project Vessels	N/A	Negligible (F)	Negligible (F)	Slight (E)	N/A	N/A	N/A
Unplanned Activity Aspect	<i>The potential environmental risk from the PGGAP to species that have a cultural feature or heritage value have been summarised below to provide the context related cumulative risk on the cultural feature or heritage value.</i>						

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		Risk Rating						
Environmental risk assessment to marine species		Marine mammals	Marine reptiles	Fish	Seabirds	Coral	Seagrass	Mangroves
6.6.1	Hydrocarbon Release – Vessel Collision	Moderate	Moderate	Moderate	Moderate	Low	Low	Low
6.6.5	Unplanned Discharge – Deck and Subsea Spills	Low	Low	Low	Low	N/A	N/A	N/A
6.6.4	Unplanned Discharge – Hazardous and Non-Hazardous Solid Waste / Equipment	Low	Low	Low	Low	N/A	N/A	N/A
6.6.2	Physical Presence (Unplanned) – Interaction with Marine Fauna	Low	Low	Low	N/A	N/A	N/A	N/A

<b>Impact and Risk Assessment</b>	<p>The PGGAP has the potential impact cultural features and heritage values through the following ways:</p> <p>Archaeological heritage:</p> <ul style="list-style-type: none"> <li>Places that are identified in the literature for their value as archaeological sites can be assumed to be impacted where there is an impact to the archaeological or scientific values of its tangible elements. This could include damage or disturbance of archaeological material or to the archaeological context.</li> </ul> <p>Intangible cultural heritage:</p> <ul style="list-style-type: none"> <li>Songlines: Songlines can become lost, fragmented, or broken when there is a loss of Country or forced removal from Country (Neale and Kelly 2020:30). Physical sites that have been identified as comprising a component of a songline are important to protect to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge. It is noted that oil and gas infrastructure exists in many areas of the North West Shelf, and that songlines are still acknowledged and recognised. It is inferred that if there were to be any impacts to surviving songlines these would be significantly more likely to be described as qualitative (i.e. “weaken” a songline) rather than binary or absolute (i.e. destroy a songline).</li> <li>Creation/dreaming sites; sacred sites; ancestral beings: Activities that physically alter landscape features may be assumed to potentially impact values of creation/dreaming sites, sacred sites or ancestral beings.</li> <li>Ceremonial sites: Activities that prevent the performance of ceremony at these sites will directly impact its values.</li> <li>Cultural obligations to care for Country: Environmental impacts may be assumed to impact rights and obligations to care for Sea Country. Exclusion of Traditional Custodians from Sea Country (e.g., by restricting access) or decision-making processes (e.g., by not conducting ongoing consultation) are other potential sources of impact.</li> <li>Knowledge of Country/customary law and transfer of knowledge: Direct impact to communities practicing these skills will inherently occur when relevant aspects of the environment disappear, are displaced or suffer a reduction in population. Therefore, the transmission of these skills is expected to be impacted where there are impacts at the species/population level. Limitations on access to sites or disruption/relocation of First Nations communities may have implications for the preservation of First Nations knowledge.</li> </ul>
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- Cultural Safety refers to respecting local Lore and culturally significant areas to protect individuals from cultural harm. There are many cultural implications for those (Aboriginal and non-Aboriginal) who do not follow cultural advice or access Country in culturally inappropriate ways.
- Connection to Country: Where people are displaced or disrupted (e.g., during colonisation) or where there is a loss of technical skills or environmental knowledge this may damage connection to Country (McDonald and Phillips, 2021).
- Access to Country: Impacts to access to Country may be classified as temporary (e.g. where exclusion zones exist around activities for safety reasons) or permanent (e.g. where infrastructure obstructs access or navigation). Impacts to access to Country can only occur in areas that were traditionally accessed by Traditional Custodians. As described in Section 4.8 this is anticipated to be focussed on areas adjacent to the coast.
- Kinship systems and totemic species: It is assumed that marine species may have kinship/totemic relationships to Traditional Custodians, but it is understood that these relationships do not prohibit people outside of that “skin group” from hunting or eating that same species (Juluwarlu 2004). It is therefore inferred that the management of totemic or kinship species applies at the species/population level and not to individual plants and animals.
- Resource collection: Direct impact to communities using these resources will inherently occur when the resource disappears, is displaced or suffers a reduction in population. Therefore, marine species (as resources) will be impacted where there is an impact at the species/population level.

Marine ecosystems and species:

- Marine ecosystems may hold both cultural and environmental value (see Section 4.8), with cultural and environmental values intrinsically linked (DCCEEW 2023, MAC 2021 as cited in Woodside 2023a). It necessarily follows that an impact to marine ecosystems has the potential to impact cultural features where the impact is detectable within sea country—the seascape which Traditional Custodians view, interact with or hold knowledge of.

### **Archaeological Heritage**

#### Onshore / intertidal archaeological sites

No coastal areas or islands exist within the Operational Area. A review of the of DPLH’s Aboriginal Heritage Inquiry System identified no Registered Aboriginal Sites or Other Heritage Places in the EMBA.).

Archaeological sites may exist in intertidal landscapes within the EMBA and may be exposed to hydrocarbon from an unplanned spill, however there is no anticipated impact pathway from the presence of hydrocarbons on archaeological values, as this is not expected to impact the fabric or context of sites on an exposed shoreline site. Impacts to the heritage value of fish traps from hydrocarbons in an unplanned spill may occur indirectly through impacts to fish. However, it is expected that continued use of fish traps beyond their archaeological value will be preserved where fish species and distribution are maintained at a population level. With regard to fish, refer to species specific assessment below.

#### Submerged archaeological sites

No submerged archaeological sites have been identified beyond terrestrial or intertidal areas, with the exception of two sites at Murujuga in Cape Bruguieres channel and Flying Foam Passage (Benjamin et al. 2020; Benjamin et al 2023), which are outside of the EMBA. Nevertheless, there is the potential for submerged archaeological sites on the Ancient Landscape. A maritime archaeologist has completed a desktop review of the available geophysical data and concluded that this activity (including the geotechnical sampling) represents a very low risk to undiscovered Underwater Cultural Heritage (Comber Consultants 2023). In response to the Comber Consultants report Woodside has implemented Controls C22.2 and C22.3 (cultural heritage awareness induction of relevant marine crew, and implementation of an Underwater Cultural Heritage Unexpected Finds Procedure).

Submerged archaeological sites (locations undefined) may exist on the Ancient Landscape within the broader EMBA. However, given the EMBA is driven by an unplanned hydrocarbon spill, it is not expected to impact the seabed or archaeological material on or within it. Therefore, there is no anticipated impact pathway to submerged archaeological sites in the broader EMBA from the PGGAP.

#### Rivers, waterholes, tidal channels and seeps

Oceanographic studies indicate that both the open ocean and coastal zone off Western Australia are well-mixed and saline. Submerged former water sources (e.g. river beds) may exist within the EMBA which are archaeologically prospective or culturally significant. The maritime archaeologist’s report notes that there whilst there are areas within the Operational Area that have potential for the

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accumulation of significant deposits of archaeological materials as well as for the development of complex cultural and spiritual associations, the geotechnical and geophysical survey activities present a very low risk to undiscovered Underwater Cultural Heritage (Comber Consultants 2023). In response to the Comber Consultants report Woodside has implemented Controls C22.2 and C22.3 (cultural heritage awareness induction of relevant marine crew, and implementation of an Underwater Cultural Heritage Unexpected Finds Procedure).

The EMBA is driven by an unplanned hydrocarbon spill, which is not expected to impact the seabed or features on it. As such, there is no anticipated impact pathway from this activity to submerged water sources in the broader EMBA. In the highly unlikely and unmitigated worst case, unplanned hydrocarbons may contact shorelines and receptors such as mangroves, and shoreline habitats. These habitats may contain brackish or fresh water due to runoff from land. Given hydrocarbon characteristics and rapid weathering, an unplanned release is expected to have no lasting effect on any freshwater sources along the shoreline.

### **General Intangible values**

#### Songlines

Management of intangible cultural heritage can include reducing impacts and risks to environmental features that are associated with intangible cultural heritage (UNESCO 2003; ICOMOS 2013). Impacts to marine plants, animals and other cultural features associated with songlines might impact the intergenerational transmission of knowledge of songlines when individuals can no longer witness or interact with the cultural features tied to songlines on Country. Therefore, managing songlines may require environmental controls protecting species at a population level, including migratory routes. Refer to species specific assessment below for further information.

Physical features comprising a component of a songline are important to protect to prevent the fragmenting or breaking apart of songlines and loss of sacred cultural knowledge. Songlines can become lost, fragmented, or broken when there is a loss of Country or impact to culturally important physical features (Neale and Kelly 2020:30). No specific details of songlines within the EMBA have been provided by relevant persons during consultation for this Activity, and no landforms typical of songlines (e.g. mountains, rivers, caves and hills (Higgins 2021)) are anticipated to be impacted by the Activity.

In publicly available literature, Murujuga is acknowledged as a starting point for songlines, including the flying fox songline (MAC 2023a). Precise location of this songline, and features of this songline that might be impacted, are not clearly articulated in the reviewed sources, but it is stated that “the sea is a source of creation for flying foxes” (DEC 2013). Although this does not provide the specificity required to determine the location of the flying fox songline or associated sites. Consultation with MAC and other Traditional custodians has not identified the flying fox songline as overlapping the EMBA, and flying foxes do not occur within the EMBA.

Kearney et al (2023) notes a connection between the Kangaroo songline and a pair of submerged waterholes identified through seabed mapping by the Deep History of Sea Country project, which later found submerged artefacts in Flying Foam passage. Noted that due to the water depth it is not expected that active or former freshwater sources that may connect to the Kangaroo or other songlines would be within the Operational Area. Consultation with MAC and other Traditional custodians has not identified these songlines as overlapping the EMBA, and these species do not occur within the EMBA.

In publicly available literature, Murujuga is acknowledged as the starting point for the seven sisters songline (Bainger 2021). Precise location of this songline, and features of this songline that might be impacted, are not clearly articulated in the reviewed sources. Consultation with MAC and other Traditional custodians has not identified the seven sisters songline as overlapping the EMBA.

While the presence of songlines are generally raised in the literature across several relevant communities, no specific details have been identified. The literature review has also identified culturally important features, which are known to be commonly associated with songlines (e.g. marine species and landforms; Section 4.9.2), and these have been separately assessed. Further assessment of intangible values and marine species are provided below.

#### Creation/dreaming sites; sacred sites; ancestral beings

Woodside has undertaken all reasonable steps to identify creation and dreaming sites, and places associated with ancestral beings within the EMBA. No such sites have been identified. A review of relevant literature has been undertaken which has identified creation, dreaming and ancestral narratives related to the sea more broadly without confirming where (if anywhere) these overlap the

EMBA (see Section 4.8.4). These references are of a general nature, and do not identify any features or values requiring specific protection or management from the proposed activities.

Sea serpents or water serpents are common in Aboriginal creation narratives, and several references were identified in the reviewed literature. The majority of these refer to serpents residing within inland rivers or pools outside of the EMBA (Barber and Jackson 2011, Dury v Western Australia [2018] FCA 1849, Hayes v Western Australia [2008] FCA 1487, Juluwarlu 2004, Kalbarri Visitor Centre 2023, Water Corporation 2019, Zaunmayr 2016, Department of Parks and Wildlife 2014, Yu 1999, DBCA 2020). In some versions, the serpent originates from the sea or coast and creates the rivers as it heads inland. Barber and Jackson (2011) also recount a story where a freshwater serpent pushes a sea serpent back into the ocean where it presumably continues to reside. This does not provide the specificity required to determine the location of sea serpents within the sea, and it is possible that the ocean as a whole (out to and beyond other continents) should be viewed generally as housing the sea serpent(s). Consultation with Traditional Custodians have not identified activities of this PGGAP as having an impact on sea serpents. However, by analogy to other water serpent narratives across Australia, possible impact pathways may include interruption of its path by blocking or reducing flows of water, damaging sacred sites such as thalu or rock art sites or depleting water sources. Relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

No impacts to water flows (either tidal movement or ocean currents) or depletion of water sources are anticipated from this PGGAP. Features of the landscape with the potential for connection to creation/dreaming stories and ancestral beings are likely within the EMBA on the Ancient Landscape. However, there are no anticipated impact pathways to submerged landscape features within the broader EMBA from the PGGAP.

#### Ceremonial sites

All mentions of active ceremonial sites were confined to onshore locations and no direct impacts to onshore ceremonial sites are anticipated from the PGGAP. However, indirect impacts may occur where ceremonies cannot be performed due to limitations on access, loss of knowledge or impacts to the environment, which are further described below.

#### Cultural obligations to care for Country

Caring for Country collectively refers to the cultural obligations of individuals and groups, as well as rituals and ceremonies required for the physical and spiritual health of the environment. Lack of access to coastally located cultural sites that carry songlines or remain ceremonially important can impact First Nations people's livelihoods and impact their ability to carry out cultural obligations on Country. While shoreline accumulation were not predicted by the modelling to occur at any location, relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

#### Knowledge of Country/ customary law and transfer of knowledge

Cultural knowledge about Sea Country/customary law and the intergenerational transmission of knowledge are important values identified through consultation, assessments and the literature review.

Transfer of knowledge includes continuing traditional practices to pass on practical skills. Direct impact to communities practicing these skills will inherently occur when relevant aspects of the environment disappear, are displaced or suffer a reduction in population—for example traditional fishing methods require the survival of traditional fish resources. Therefore, ensuring the transmission of cultural knowledge may require environmental controls protecting species and migratory pathways at a population level. Refer to species specific assessment below for further information.

#### Connection to Country

Connection to Country describes the multi-faceted relationship between First Nations people and the landscape, which is envisioned as having personhood and spirit. Connection to Country may be damaged where people are displaced or disrupted (e.g. during colonisation) or where there is a loss of technical skills or environmental knowledge (McDonald and Phillips, 2021). No impacts of this nature are considered to arise from this PGGAP. Access to Country is discussed below.

#### Access to Country

Access to Country, including Sea Country, is necessary for the continuation of other values including caring for Country and the transfer of traditional knowledge. Access is also a value in its own right, as a continuation of traditional Sea Country access and use.

Access to areas within the Operational Area may be limited where exclusion zones are established around vessels for safety purposes. However due to the location offshore this is not expected to

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impact on Access to Country. Access to Country within the EMBA would be limited to temporary exclusion in areas where there are hydrocarbons present. However relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

#### Cultural Safety

Cultural Safety refers to respecting local Lore and culturally significant areas to protect individuals from cultural harm. There are many cultural implications for those (Aboriginal and non-Aboriginal) who do not follow cultural advice or access Country in culturally inappropriate ways. Cultural safety may include observing gender restricted areas, respecting significant places and restricted areas as well as following the advice from those with cultural authority. Therefore relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

#### Kinship systems and totemic species

Individuals may have kinship to specific species (Smyth 2008, Juluwarlu 2004) and/or a responsibility to care for species (Muller 2008). These relationships are understood to impose obligations on Traditional Custodians. It is understood that these obligations do not impose restrictions on other people generally, but it is considered that impacts to species at a population level may inhibit Traditional Custodians with kinship relationships' ability to perform their obligations where this results in reduced or displaced populations. It is therefore considered that the management of totemic or kinship species applies at the species/population level and not to individual plants and animals. As such, impacts to individual marine fauna is not expected to impact on the totemic or kinship cultural connection.

Totemic species identified during consultation include whales, fish, stingrays and octopuses. Refer to species specific assessment below for further information. In the highly unlikely event of a hydrocarbon spill relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

#### Resource collection

A suite of marine species have been identified through consultation and literature as important resources, particularly as food sources. For example, Sea Country resources of noted relevance to Thalanyji people which may be present in the vicinity of the Montebello Islands include dugongs, majun (marine turtles), turtle eggs, fish and shellfish. Through consultation, Karriyara Aboriginal Corporation similarly identified marine mammals, fish, molluscs including bivalves, gastropods and cephalopods as important for resource collection. Other resource species include seabirds, sea urchins and mangrove seeds.

In addition to their immediate value as sustenance, the gathering and preparation of these resources are informed by cultural knowledge, and an inability to use these resources may result in a loss of ability to transfer that knowledge to future generations. Direct impact to communities using these resources will inherently occur when the resource disappears, is displaced or suffers a reduction in population. Therefore, these communities may be impacted where there is an impact at the species/population level.

Impacts from planned activities on the marine environment, including resources important to First Nations people, is expected to be limited to negligible or slight and therefore impacts that result in population effects (e.g., population decline, changes in migration routes, etc) are not expected. Impacts to potential resources within the EMBA, in the highly unlikely event of hydrocarbon spill, are described and risk assessed in Section 6.6.1 and are not expected to result in species / population level impacts. While shoreline accumulation were not predicted by the modelling to occur at any location, relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

### **Marine Ecosystems and Species**

#### Marine mammals (whale, dolphins, dugongs)

There are increase ceremonies / rituals for species of animals and plants important to First Nations, to enhance or maintain populations. Thalu are places where these increase ceremonies are performed. All mentions of active ceremonial sites in the reviewed literature were confined to onshore locations, though the values may extend offshore where, for example, the thalu relates to marine species populations. As thalu ceremonies are performed to maintain and increase populations of marine species, it is inferred that management applies at the species/population level and not to individuals. Reviewed literature (Deloitte 2020) also includes information that is marked as information that cannot be copied, reproduced or used without consent. The values described in the literature are environmental in nature, apply to marine mammal behaviours at a population level and are managed through existing environmental controls in Sections 6.5 and 6.6.

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Related intangible cultural heritage may include the transmission of cultural knowledge about whales and whale behaviour, including birthing areas, whale communication and migratory patterns. Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). Whale symbology expressed through stories, music, and dance can reflect a group's connections with the sea, as well as marine fauna, which then comprise a group's cultural values (Ardler 2021; Bursill et al. 2007; Cressey 1998). Whales also speak to a broader connection that exists between First Nation people and their surrounding environment. Beyond mythology and symbolism, whales can be connected with various economic and social functions associated with everyday life. Cultural knowledge of whales, whale migration, behaviour and the related marine environment may all be important in ensuring the continuation of these socio-economic functions and other related activities that remain valuable to First Nations people (Fijn 2021). No impacts to communities' ability to perform or transmit stories, music or dance are anticipated from the PGGAP. Where timing or performance is linked to sighting or engaging with these species, impacts may occur where numbers or migration behaviours are impacted at a population level.

First Nations groups have expressed interest about whale migratory routes and studies. Inter-generational transmission of cultural knowledge (including songlines) relating to marine mammals may be impacted where changes to population or behaviour at a population level results in reduced sightings (e.g. through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO 2003).

As described in the relevant environmental impact and risk assessments in Sections 6.5 and 6.6 respectively, potential impacts to cetaceans from planned activities are limited to behavioural impact, which may include temporary and localised deviations from migratory pathways for cetaceans. However, no permanent impacts preventing cetaceans from entering or occupying the areas have been identified. These impacts and risks are not considered to be ecologically significant at a population level, and hence are not expected to impact the value of marine mammals, including the transmission of cultural knowledge. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

#### Marine reptiles (turtles, sea snakes, crocodiles)

Turtles and crocodiles have been identified through consultation and existing literature as an important resource, particularly as food sources. Direct impact to communities using these resources will inherently occur when the resource disappears, is displaced or suffers a reduction in population. Therefore, these species (as resources) will be impacted where there is an impact at the species/population level.

Intangible cultural heritage may also include the transmission of cultural knowledge about marine reptiles, such as nesting areas, hunting areas and migratory patterns. Cultural knowledge may also be conveyed through stories, such as the turtle being trapped in the sea as a result of its greed for berries as recounted by Capewell (2020). Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). First Nations groups have expressed an interest regarding turtle monitoring programs and migration patterns. Activities that impact turtle / crocodile populations and their marine environment may have an indirect impact on some Aboriginal communities as this can limit access to cultural sites or deplete hunting areas that would threaten local food security (Delisle et al. 2018:251). Inter-generational transmission of cultural knowledge (including songlines) relating to marine reptiles may be impacted where changes to population or behaviour results in reduced sightings (e.g. through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO 2003).

As described in the relevant environmental impact and risk assessments in Sections 6.5 and 6.6 respectively, potential impacts to marine reptiles from planned activities are likely to be restricted to temporary behavioural changes, which are not considered to be ecologically significant at a population level, and hence not expected to impact the value of marine reptiles, including the transmission of cultural knowledge or use as a resource. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

#### Fish and Cephalopods

Fish and squid have been identified through consultation and existing literature as an important resource, particularly as food sources. Direct impact to communities using these resources will

inherently occur when the resource disappears, is displaced or suffers a reduction in population. Therefore, these species (as resources) will be impacted where there is an impact at the species/population level.

Through consultation, fish were identified as important agents in the management of the broader ecosystem. It may be assumed that inter-generational transmission of cultural knowledge relating to fish may be impacted where changes to population or behaviour results in reduced sightings (e.g. through population decline). In addition, a MIAC (2019) identified whale sharks as a culturally important species associated with stories which describe them as guardians of the sea. This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO 2003). Intangible cultural heritage associated with fish and whale sharks, including inter-generational knowledge regarding fishing techniques and migratory patterns, can be managed by reducing impacts to fish in nearshore marine environments to which this cultural knowledge is intrinsically connected.

The octopus is an important totem to Ngarla People and features in the creation story of Solitary Island. There are increase ceremonies / rituals for species of squid and octopus to enhance or maintain populations. Thalu are places where these increase ceremonies are performed. All mentions of active ceremonial sites in the reviewed literature were confined to onshore locations, though the values may extend offshore where, for example, the thalu relates to marine species populations. As thalu ceremonies are performed to maintain and increase populations of marine species, it is inferred that management applies at the species/population level and not to individuals.

As described in the relevant environmental impact and risk assessments in Sections 6.5 and 6.6, respectively, the potential impacts from planned activities on fish<sup>47</sup> are considered to be localised and with slight, short-term (<1-year) impact potential on species (or lower), but not affecting ecosystem function, physical or biological attributes. Impact potential is not considered to be ecologically significant at a population level. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

#### Seabirds

Seabirds, specifically shags, have been identified through literature as a culturally significant species (Malgana Land and Sea Management et al. 2021), as well as a resource (seabird eggs; Smyth 2007). Direct impact to communities using these resources will inherently occur when the resource disappears, is displaced or suffers a reduction in population. Therefore, these species (as resources) will be impacted where there is an impact at the species/population level. Intangible cultural heritage may also include the transmission of cultural knowledge about seabirds, such as nesting areas, hunting areas and migratory patterns. Such cultural knowledge may be associated with various cultural functions and activities that support the social and economic life of a community (Fijn 2021). Inter-generational transmission of cultural knowledge relating to seabirds may be impacted where changes to population or behaviour results in reduced sightings (e.g. through population decline, changes to migration routes or changes to migration seasonality). This transfer of knowledge may be integral to managing a group's intangible cultural heritage (UNESCO 2003).

As described in the relevant environmental impact assessments in Sections 6.5 and 6.6, the potential impacts from the PGGAP on seabirds is limited to slight. The potential for temporary behavioural disturbance localised around vessels from light is not expected to result in a substantial adverse effect on species' population, and light emissions will not seriously disrupt the lifecycle of an ecologically significant proportion any migratory bird species. In terms of risk, as described in Section 6.6.1 a change in marine fauna behaviour or injury/mortality to seabirds and migratory shorebirds may occur due to a change in water or sediment quality following an unplanned hydrocarbon release. Given hydrocarbon characteristics, expected rapid weathering to below impact thresholds, and the mobile transient nature of individuals, unplanned hydrocarbon releases are not expected to substantially modify important habitat for migratory species. As such, cultural values and intangible cultural heritage associated with these species are expected to be maintained.

<sup>47</sup> Squid and octopus are considered to be impacted through similar impact pathways as fish, and hence the conclusion represented here are considered appropriate for cephalopods.

Benthic habitats (coral, seagrass)

Through consultation, First Nations groups identified benthic habitats as valuable for their ecological values, including corals attracting fish and seagrass providing shelters for fauna, as well as an important habitat for dugongs.

There is no overlap between the Operational Area and coral / seagrass habitats as water depth is more than 170 m, and no planned impacts to coral / seagrass habitats from the PGGAP.

In terms of risk, as described in Section 6.6.1 a change in habitat may occur following an unplanned hydrocarbon release. Given hydrocarbon characteristics, rapid weathering, short-term exposure, as well as the response strategies planned to be deployed, an unplanned release may result in localised impacts coral and seagrass habitats. As such, cultural values and intangible cultural heritage associated with benthic habitats are expected to be maintained.

Shoreline Habitats (mangroves / salt marshes)

Through consultation, First Nations groups identified shoreline habitats as valuable for their ecological values, including mangroves for providing shelter to marine invertebrates, which are identified resources, and potential nursery for turtles. In consultation, Kariyarra Aboriginal Corporation identified an interest in coastal native vegetation but did not provide any specific details. Literature notes that shoreline habitats including mangroves are also valued for the flora and fauna they are associated with and support (Commonwealth of Australia 2002) and Smyth (2007) reports that mangrove seeds are used as a resource by Ngarda-Ngarli.

There is no overlap between the Operational Area and mangrove / salt marsh habitat, and no planned impacts to mangroves from the PGGAP.

In terms of risk, as described in Section 6.6.1 a change in habitat may occur due to a change in water or sediment quality following an unplanned hydrocarbon release. Given hydrocarbon characteristics, rapid weathering, as well as the response strategies planned to be deployed an unplanned release may result in localised impacts to coral and seagrass habitats. As such, cultural values and intangible cultural heritage associated with shoreline habitats are expected to be maintained.

Marine Park / coastal reserves

A number of marine parks are jointly managed with First Nation groups. The groups are responsible for sharing management decisions and also for sharing in the overall responsibility of making sure the marine park fulfills its purpose.

Operational Area A overlap the Montebello Australian Marine Park.

In terms of risk, as described in Section 6.6.1, shoreline accumulation were not predicted by the modelling to occur at any location. The relevant cultural authorities will be engaged in the event of a spill that may affect them, as specified in Appendix I.

**Conclusion**

The impact and risk assessment for cultural features and heritage values has determined that the planned activities are unlikely to result in an impact greater than negligible (F) and unplanned activities are assessed to have a residual risk rating of High (or lower).

<b>ALARP Demonstration</b>	<i>As marine ecosystems may hold both cultural and environmental value (see Section 4.9.1), with cultural and environmental values intrinsically linked, in addition to the specific controls for cultural features and heritage values, the controls and performance standards in section 6.7 and 6.8 will reduce impacts to cultural features and heritage values, including marine species and habitats.</i>				
	<b>Control considered</b>	<b>Feasibility (F) &amp; Cost/ Sacrifice (Cs)</b>	<b>Benefit in Impact/Risk Reduction</b>	<b>Proportionality</b>	<b>Adopted</b>

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Apply a 'living heritage' <sup>48</sup> management approach. Woodside seeks advice and incorporates Traditional Custodian cultural knowledges across our activities. Cultural safety considerations are factored for our workforce and the Traditional Custodian community.	F: Yes CS: Minimal	Implementation of the 'living heritage' approach pays acknowledgement and respect to Traditional Custodian communities. It supports the transfer of cultural knowledges and is an effective strategy to manage intangible cultural values.	Benefits outweigh cost/sacrifice.	Yes <b>C 22.1</b>
Project inductions to all relevant marine crew, prior to the individual commencing the activity, will include information on cultural features and heritage values, including tangible and intangible cultural heritage.	F: Yes CS: Minimal	Ensures workforce is suitably aware of cultural features and heritage values in the area they are operating.	Benefits outweigh cost/sacrifice.	Yes <b>C 22.2</b>
Unexpected finds of potential Underwater Cultural Heritage sites/ features, including First Nations UCH are managed in accordance with the Unexpected Finds Procedure set out in Section 7.4	F: Yes CS: Minimal	Allows management of new finds in accordance with legislative requirements, expert advice and community expectations.	Benefits outweigh cost/sacrifice.	Yes <b>C 22.3</b>
Should it be identified, that relevant cultural authorities may be affected in the unlikely event of a	F: Yes CS: Minimal	Engaging with relevant cultural authorities that may be impacted by a spill will allow the Traditional	Benefits outweigh cost/sacrifice	Yes Adopted, see Appendix D

48 Living heritage supports community and individual identity. Intangible cultural heritage is 'living heritage' that is inherited from ancestors and passed on to their descendants. It is comprised of many influences, including oral traditions, art, social practices, rituals and ceremonies, cultural knowledge and practices. It is transmitted from generation to generation, and evolves in response to the environment. Woodside applies a 'living heritage' approach to its cultural heritage management. This includes ensuring that Traditional Custodians are given voice to identify interests, transmit information and express concerns. Woodside works with Traditional Custodians to support and follow appropriate cultural protocols, including calling to Country, conducting smoking ceremonies (in areas where this custom is appropriate) and undertaking cultural awareness. Woodside will collaborate and provide relevant information it holds to groups such as Heritage Management Committees where they are established.

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spill, Woodside will engage with those parties as appropriate and in alignment with the FSP.

Custodians to identify areas of concern.

**ALARP Statement**

On the basis of the impact and risk assessment outcomes and use of the relevant tools appropriate to the decision type (i.e. Decision Type A, Section 2.5.2.1.1), Woodside considers the adopted controls appropriate to manage the potential impacts and risks to cultural features and heritage values. As no reasonable additional/alternative controls were identified that would further reduce the impacts without grossly disproportionate sacrifice, the impacts are considered ALARP.

**Acceptability Statement**

The impact and risk assessment has determined that, given the adopted controls, planned activities are unlikely to result in an impact greater than negligible and unplanned activities are assessed to have a residual risk rating of moderate (or lower).

The PGGAP and the EMBA are not expected to have a significant impact (e.g. changes in population levels) on MNES including marine fauna with a First Nations connection with, or traditional use in nearshore areas as defined above. While the Operational Area and EMBA overlap the Ancient Landscape no impacts are predicted as hydrocarbons are expected to remain within the upper water column.

Woodside has engaged with Traditional Custodians adjacent to the EMBA to understand the cultural features and heritage values that may occur and potential impacts from the activity. In the event of an unplanned loss of hydrocarbons Woodside has committed to engaging with relevant cultural authorities that may be affected (Appendix I).

Further opportunities to reduce the impacts have been investigated above. The potential impacts and risks are considered acceptable if the adopted controls are implemented. Therefore, Woodside considers the adopted controls appropriate to manage the impacts and risks to cultural features and heritage values to a level that is acceptable, if ALARP.

**Key Environmental Performance Outcomes, Standards and Measurement Criteria related to Cultural Features and Heritage Values<sup>49</sup>**

<b>EPO</b>	<b>Adopted Control(s)</b>	<b>EPS</b>	<b>MC</b>
EPO 22 No adverse impact to cultural features and heritage values, greater than a consequence level of F from the PGGAP	C 22.1 Apply a 'living heritage management approach. Woodside seeks advice and incorporates Traditional Custodian cultural knowledge across our activities. Cultural safety considerations are factored for our workforce and the Traditional Custodian community.	PS 22.1.1 Woodside will continue to give voice to Traditional Custodians to identify interests, transmit information and express concern.	MC 22.1.1 Records demonstrate Change Management and Management of Knowledge processes have been followed where new controls or management measures identified
		PS 22.1.2 Woodside will assess and where deemed practicable will implement appropriate cultural protocols where	MC 22.1.2 Records demonstrate Woodside implemented cultural protocols as requested

<sup>49</sup> As marine ecosystems may hold both cultural and environmental value (see Section 4.9.1), with cultural and environmental values intrinsically linked, in addition to the specific controls for cultural features and heritage values, the controls and performance standards in section 6.6 and 6.7 will reduce impacts to cultural features and heritage values including marine species and habitats.

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		requested by Traditional Custodians	
	<p>C 22.2</p> <p>Project inductions to all relevant marine crew, prior to the individual commencing the activity, will include information on cultural features and heritage values, including tangible and intangible cultural heritage.</p>	<p>C 22.2.1</p> <p>All relevant marine crew have completed Project inductions that include information on cultural values, including tangible and intangible cultural heritage for awareness</p>	<p>MC 22.2.1</p> <p>Records demonstrate all relevant marine crew have completed inductions that include cultural material</p>
	<p>C 22.3</p> <p>Unexpected finds of potential Underwater Cultural Heritage sites/ features, including First Nations UCH are managed in accordance with the Unexpected Finds Procedure set out in Section 7.5.</p>	<p>PS 22.3.1</p> <p>In the event that an underwater cultural heritage site or feature is identified implement the Unexpected Finds Procedure set out in Section 7.5.</p>	<p>MC 22.3.1</p> <p>No non-compliance with the Unexpected Finds Procedure.</p>

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## 7. IMPLEMENTATION STRATEGY

### 7.1 Overview

Regulation 22 of the Environment Regulations requires an EP to contain an implementation strategy for the activity. The implementation strategy for the PGGAP confirms fit-for-purpose systems, practices and procedures are in place to direct, review and manage the activities so that environmental risks and impacts are continually being reduced to ALARP and are acceptable, and that EPOs and PS outlined in this EP are achieved.

Woodside, as Operator, is responsible for ensuring that the PGGAP is managed in accordance with this Implementation Strategy and the WMS (Section 1.7).

### 7.2 Systems, Practice, and Procedures

All operational activities are planned and carried out in accordance with relevant legislation and internal environment standards and procedures identified in this EP (Section 2.4).

Processes are implemented to verify controls to manage environmental impacts and risks to:

- a level that is ALARP and acceptable
- meet EPOs
- comply with EPSs defined in this EP.

The systems, practices and procedures that will be implemented are listed in the EPSs contained in this EP. Document names and reference numbers may be subject to change during the statutory duration of this EP; this is managed through a change register and management of change process.

### 7.3 Roles and Responsibilities

Key roles and responsibilities for Woodside and contractor personnel relating to implementing, managing and reviewing this EP are described in Table 7-1. Roles and responsibilities for oil spill preparation and response are outlined in Section 7.11 and the [Woodside Oil Pollution Emergency Arrangements \(Australia\)](#).

**Table 7-1: Roles and responsibilities**

Title (role)	Environmental Responsibilities
<b>Office-based Personnel</b>	
Woodside Survey Operations Project Manager	<ul style="list-style-type: none"> <li>• Verify relevant Environmental Approvals for the activities exist before commencing activity.</li> <li>• Monitor and manage the activity so it is performed as per the relevant standards and commitments in this EP.</li> <li>• Notify the Woodside Environment Adviser in a timely manner of any scope changes.</li> <li>• Liaise with regulatory authorities as required.</li> <li>• Review this EP as necessary and manage change requests.</li> <li>• Ensure all project and support vessel crew members complete a Project (Including HSE) induction.</li> <li>• Verify that contractors meet environmental related contractual obligations.</li> <li>• Liaise with contractors to ensure communication and understanding of environment requirements as outlined in this EP.</li> <li>• Confirm environmental incident reporting meets regulatory requirements (as outlined in this EP) and Woodside's HSE Reporting and Investigation Procedure.</li> <li>• Monitor and close out corrective actions identified during environmental monitoring or audits.</li> <li>• Track compliance with performance outcomes and performance standards as per the requirements of this EP.</li> </ul>
Woodside Environmental Adviser	<ul style="list-style-type: none"> <li>• Prepare environmental component of relevant Induction Package.</li> <li>• Review compliance with performance outcomes and performance standards as per the requirements of this EP.</li> <li>• Ensure relevant Environmental Approvals for the activities exist before commencing activity.</li> <li>• Input to environmental component of relevant Induction Package.</li> <li>• Assist with the review, investigation and reporting of environmental incidents as required.</li> <li>• Assist environmental monitoring and inspections/audits are performed as per the requirements of this EP as required.</li> <li>• Liaise with relevant regulatory authorities as required.</li> <li>• Assist in preparing required external regulatory reports, in line with environmental approval requirements and Woodside incident reporting procedures.</li> <li>• Provide advice to relevant Woodside personnel and contractors to help them understand their environment responsibilities.</li> <li>• Support the Survey Operations Project Manager in ensuring communications and understanding of environment requirements as outlined in this EP.</li> <li>• Provide environmental support for activities through regular engagement with the Woodside Site Representative.</li> </ul>

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Woodside Corporate Affairs Adviser	<ul style="list-style-type: none"> <li>• Prepare and implement the Consultation Plan for the Petroleum and Greenhouse Gas Activities Program.</li> <li>• Report on consultation.</li> <li>• Continuously liaise and provide notification as required as outlined in the EP.</li> </ul>
Woodside Marine Assurance Superintendent	<ul style="list-style-type: none"> <li>• Source and conduct relevant audit and inspection to confirm vessels comply with relevant Marine Orders and Woodside Marine Charters Instructions requirements.</li> </ul>
Woodside Corporate Incident Management Centre (CIMT) Duty Manager	<p>On receiving notification of an incident, the Woodside CIMT Duty Manager shall:</p> <ul style="list-style-type: none"> <li>• Establish and take control of the Incident Management Team and establish an appropriate command structure for the incident.</li> <li>• Assess the situation, identify risks and actions to minimise the risk.</li> <li>• Communicate impact, risk and progress to the Crisis Management Team and stakeholders.</li> <li>• Develop the Incident Action Plan (IAP) including objectives for action.</li> <li>• Approve, implement and manage the IAP.</li> <li>• Communicate within and beyond the incident management structure.</li> <li>• Manage and review safety of responders.</li> <li>• Address the broader public safety considerations.</li> <li>• Conclude and review activities.</li> </ul>
<b><i>Vessel-based Personnel</i></b>	
Vessels Master	<ul style="list-style-type: none"> <li>• Ensure the vessel management system and procedures are implemented.</li> <li>• Ensure personnel commencing work on the vessel receive an environmental induction that meets the relevant requirements specified in this EP.</li> <li>• Ensure personnel are competent to perform the work they have been assigned.</li> <li>• Verify SOPEP drills are conducted as per the vessel's schedule.</li> <li>• Ensure the vessel Emergency Response Team has been given sufficient training to implement the SOPEP.</li> <li>• Ensure any environmental incidents or breaches of relevant EPOs or PSs detailed in this EP, are reported immediately to the Party Chief and Woodside Site Representative.</li> <li>• Ensure corrective actions for incidents or breaches are developed, communicated to the Woodside Site Representative, and tracked to closeout in a timely manner. Ensure closeout of actions is communicated to the Woodside Site Representative.</li> </ul>

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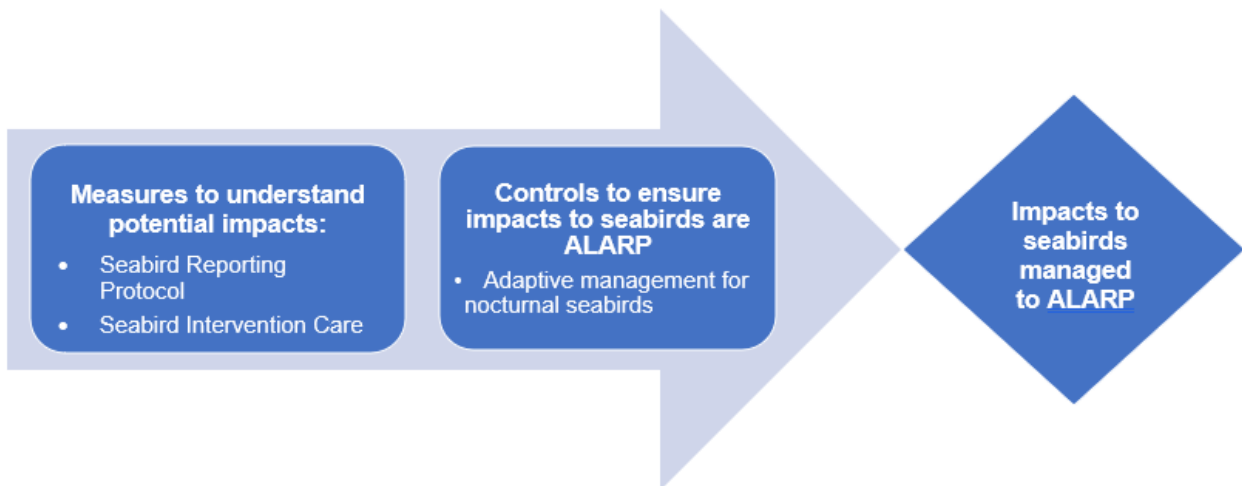
Party Chief / Manager	<ul style="list-style-type: none"> <li>• Understand and manage environmental aspects of the survey operations per this EP and approval conditions.</li> <li>• Provide copies of documents, records, reports and certifications (as requested by Woodside) in a timely manner to assist in compliance reporting.</li> <li>• Ensure any environmental incidents or breaches of EPOs or PSs detailed in this EP, are reported immediately to the Woodside Site Representative and Woodside Survey Operations Project Manager.</li> </ul>
Woodside Site Representative	<ul style="list-style-type: none"> <li>• Ensure project personnel adhere to the requirements of this EP so the EPOs are met, and the PSs detailed in this EP are implemented during survey operations.</li> <li>• Ensure environmental incidents or breaches of outcomes or standards are reported as per the Woodside event notification requirements. Corrective actions for incidents and breaches must be developed, tracked and closed out in a timely manner.</li> <li>• Ensure periodic environmental inspections are completed. Monitor and close out corrective actions (eCAR) identified during environmental monitoring or audits/inspections.</li> <li>• Ensure any environmental incidents or breaches of EPOs or PSs detailed in this EP, are reported immediately to the Woodside Survey Operations Project Manager.</li> <li>• Review Contractors' procedures, input into Toolbox talks and JSAs.</li> <li>• Provide environmental support for activities through regular engagement with Woodside Environmental Adviser.</li> </ul>

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## 7.4 Frontline Offshore Seabird Management Plan

Survey Vessels will implement Woodside’s Frontline Offshore Seabird Management Plan (SBMP), which aligns with recommendations in the National Light Pollution Guidelines for Wildlife (Commonwealth of Australia, 2023) (see C 5.3). When implemented, the SBMP addresses seabird interaction reporting and management for offshore/inshore activities within the NWMR, specifically where the activity is located within a nocturnal seabird species BIA.

The purpose of the SBMP is to manage interactions with seabirds offshore to ensure any impacts and risks are reduced to ALARP and an acceptable level. The plan also provides frontline workers with guidance to manage seabird interactions and potential impacts resulting from these interactions identified as occurring as a result of Woodside’s activities, as demonstrated in Figure 7-1.



**Figure 7-1: Schematic for SBMP to manage seabird impacts to ALARP.**

The SBMP adaptive management framework has been established to manage the uncertainty of the potential impacts of artificial night at light on nocturnal seabirds. Where interactions<sup>50</sup> with nocturnal seabirds are identified, adaptive management controls under the SBMP may be triggered in a tiered approach.

This may include an initial assessment of:

- Seabird species important habitat proximity, life cycle seasonality and periods of heightened sensitivity such as fledgling exodus;
- Overlap of seabird interactions and inclement weather (for example, post-cyclonic metocean conditions are known to increase seabird groundings);

And the possible consideration of controls and mitigation actions, for example:

- Extinguish outdoor/deck lights not necessary for safety and navigation at night,
- Use of block-out-blinds on portholes and windows not necessary for safety and/or navigation.

<sup>50</sup> Interaction is defined as a death, injury, entanglement or impact to seabird; or a grounding of a nocturnal seabird.



## 7.5 Unexpected Finds Procedure

In the event of the discovery of what appears to be Underwater Cultural heritage (defined as ‘any trace of human existence that has a cultural, historical or archaeological character and is located under water’); the following Unexpected Finds Procedure will apply:

- All activities with the potential to impact the suspected Underwater Cultural Heritage must cease immediately. Retain all records of the potential Underwater Cultural Heritage including any imagery, description and location.
- Person who discovers the heritage object must inform the Activity Supervisor
- Activity Supervisor must notify Woodside’s Principal Heritage Adviser.
- Woodside will specify an appropriate buffer around the potential Underwater Cultural Heritage, taking into consideration the nature and scale of the potential Underwater Cultural Heritage and the activities to be managed.
- No seabed disturbance may occur within the buffer area around the potential Underwater Cultural Heritage until approved by Woodside’s Principal Heritage Adviser.
- Woodside’s Principal Heritage Adviser must notify a qualified maritime archaeologist and provide all available documentation of the potential Underwater Cultural Heritage.
- If the potential Underwater Cultural Heritage appears to be Aboriginal Underwater Cultural Heritage, Woodside’s Principal Heritage Adviser must notify the appropriate Traditional Custodians to determine whether it is a heritage site and if so, how the site should be managed.
- If the potential Underwater Cultural Heritage appears to be a shipwreck or aircraft that has been wrecked for more than 75 years, or is otherwise reportable under Section 40 of the UCH Act, Woodside’s Principal Heritage Adviser must notify the Minister responsible for the UCH Act, the DCCEEW underwater archaeological section through the Australian Underwater Cultural Heritage Database, and the Western Australian Museum.
- If the suspected heritage object includes human remains, Woodside’s Principal Heritage Adviser must also notify:
  - The Australian Federal Police (phone: 131 444) of the location of the remains, that the remains are likely to be historic or Aboriginal in origin, and that it may be appropriate that Traditional Custodians and a maritime archaeologist are present during any handling of the remains; and
  - The Office of the Federal Environment Minister in accordance with Section 20 of the ATSIHP Act
- Work must not recommence in the vicinity of the heritage object until Woodside’s Principal Heritage Adviser provides written approval. Woodside’s Principal Heritage Adviser must only provide written approval once agreed management measures are implemented consistent with approvals and legislation or where the potential Underwater Cultural Heritage is confirmed to not be Underwater Cultural Heritage.

## 7.6 Training and Competency

### 7.6.1 Overview

Woodside as part of its contracting process assesses a proposed contractor’s environmental management systems to determine the level of compliance with the standard AS NZ ISO 14001.

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This assessment is performed for the PGGAP as part of the pre-mobilisation process. The assessment determines whether there is a clearly defined organisational structure that sets out the roles and responsibilities for key positions. The assessment also assesses whether there is an up-to-date training matrix that defines any corporate and site/activity-specific environmental training and competency requirements.

As a minimum, environmental awareness training is required for all personnel, detailing awareness and compliance with the contractor's environmental policy and environmental management system.

### 7.6.2 Inductions

Inductions are provided to all relevant personnel (e.g. contractors and Company representatives) before mobilising to or on arrival at the activity location. The induction covers the HSE requirements and environmental information specific to the activity location. Attendance records will be maintained.

The PGGAP induction may cover information about:

- Description of the activity.
- Ecological and socio-economic values of the activity location.
- Regulations relevant to the activity.
- Woodside's Environmental Management System – Health Safety and Environment and Biodiversity Policies.
- EP importance/structure/implementation/roles and responsibilities.
- Main environmental aspects/hazards and potential environmental impacts and related performance outcomes.
- Oil spill preparedness and response.
- Monitoring and reporting on performance outcomes and standards using measurement criteria.
- Incident reporting.

### 7.6.3 Activities Program Specific Environmental Awareness

Before commencing the PGGAP, a pre-activity meeting will be held with all relevant personnel. The pre-activity meeting provides an opportunity to reiterate specific environmental sensitivities or commitments associated with the activity. Relevant sections of the pre-activity meeting will also be communicated to the support vessel personnel. Attendance lists are recorded and retained.

During operations, regular HSE meetings will be held. During these meetings, recent environmental incidents are reviewed and awareness material presented.

### 7.6.4 Management of Training Requirements

All personnel are required to be competent to perform their assigned positions. This may be in the form of external or 'on the job' training. The vessel Safety Training Coordinator (or equivalent) is responsible for identifying training needs, keeping records of training performed and identifying minimum training requirements.

## 7.7 Monitoring, Auditing, Management of Non-Conformance and Review

### 7.7.1 Monitoring

Woodside and its contractors will undertake a program of periodic monitoring during the Petroleum Activities Program – starting at mobilisation of each activity and continuing through the duration of each activity to activity completion. This information will be collected using tools and systems outlined below, developed based on the environmental performance outcomes, controls, standards and measurement criteria in this EP. The tools and systems will collect, as a minimum, the data (evidence) referred to in the measurement criteria in Section 6 and Appendix H.

The collection of this data will form part of the permanent record of compliance maintained by Woodside and will act as the basis for demonstrating that the EPOs and PS are met, which will be summarised in a series of routine reporting documents.

#### 7.7.1.1 Source-based Impacts and Risks

The tools and systems to monitor environmental performance, where relevant, will include:

- Daily reports which include leading indicator compliance.
- Periodic review of waste management and recycling records.
- Use of contractor's risk identification program that requires personnel to record and submit safety and environment risk observation cards routinely (frequency varies with contractor).
- Collection of evidence of compliance with the controls detailed in the EP relevant to offshore activities by the Woodside Offshore HSE Adviser (other compliance evidence is collected onshore).
- Environmental discharge reports that record volumes of planned and unplanned discharges to ocean and atmosphere.
- Monitoring of progress against key performance indicators.
- Internal auditing and assurance program as described in Section 7.7.2.

Throughout this activity, Woodside will continuously identify new source-based risks and impacts through the Monitoring and Auditing systems and tools described above and in Section 7.7.2.

#### 7.7.1.2 Management of Knowledge

Review of knowledge relevant to the existing environment is undertaken in order to identify changes relating to the understanding of the environment or legislation that supports the risk and impact assessments for EPs (in-force and in-preparation). Relevant knowledge is defined as:

- environmental science supporting the description of the existing environment
- socio-economic environment and stakeholder information
- environmental legislation.

The frequency and record of reviews, communication of relevant new knowledge and consideration of management of change are documented in the WMS Environment Plan Guideline. Any relevant new information on cultural values will be assessed using the EP Management of Change Process (refer to Section 7.8).

Under the Oil Spill Scientific Monitoring Program preparedness, an annual review and update to the environmental baseline studies database is completed and documented. Periodic location-focused environmental studies and baseline data gap analyses are completed and documented. Any

subsequent studies scoped and executed as a result of such gap analysis are managed by the Woodside Biodiversity and Science Team and tracked via the Corporate Environment Baseline Database.

## 7.7.2 Auditing

Environmental performance auditing will be performed to:

- identify potential new, or changes to existing environmental impacts and risk, and methods for reducing those to ALARP
- confirm that mitigation measures detailed in this EP are effectively reducing environmental impacts and risk, that mitigation measures proposed are practicable and provide appropriate information to verify compliance
- confirm compliance with the Performance Outcomes, Controls and Standards detailed in this EP.

The internal audits/inspections and reviews, combined with the ongoing monitoring described in Section 7.7.1, and collection of evidence for measurement criteria are used to assess environmental performance outcomes and standards.

As part of Woodside's EMS and/or assurances processes, activities are periodically selected for environmental audits as per Woodside's internal auditing process. Audit, inspection and review findings relevant to continuous improvement of environmental performance are tracked through the Environmental Commitments and Actions Register (ECAR). This ECAR is used to track compliance with EP commitments, including any findings and corrective actions.

Non-conformances identified will be reported and/or tracked in accordance with Section 7.7.3.

### 7.7.2.1 Vessel Activities

No vessel activities associated with the PGGAP other than those directly associated with survey activities, described in Section 7.7.2.2.

### 7.7.2.2 Survey Activities

The following internal auditing will be performed for the survey activities:

Pre-mobilisation inspection/audit report will be conducted by a relevant person (before commencing). The scope of the audits are risk-based and specific to the relevant activity, but will generally focus on aspects relating to ensuring appropriate understanding of environmental commitments and the operational readiness of the activity scope, including appropriate environmental controls in place. All primary vessels associated with the PGGAP will be audited by Woodside.

At least one operational compliance audit relevant to applicable EP commitments will be conducted by a Woodside Environment Adviser for the survey activity. The audit may be conducted offshore or office-based, subject to the duration of the activity and logistics of performing the audit offshore for short duration scopes.

Vessel-based HSE inspections will be conducted fortnightly by vessel HSE personnel. Each inspection will focus on a specific risk area relevant to the project activity and a formal report will be issued (for example, bunkering controls, chemical and discharge management, cetacean reporting, etc).

The internal audits and reviews, combined with the ongoing monitoring described in Section 7.7.1, and collection of evidence for MC are used to assess EPOs and standards.

As part of Woodside's Environmental Management System (EMS) and/or assurances processes, activities may also be periodically selected for environmental audits as per Woodside's internal auditing process. Audit, inspection and review findings relevant to continuous improvement of environmental performance are tracked through the Environmental Commitments and Actions Register.

This Environmental Commitments and Actions Register is used to track vessel and survey activity compliance with EP commitments, including any findings and corrective actions.

Non-conformances identified will be reported and/or tracked in accordance with Section 7.7.3 and Section 7.7.4.

### 7.7.2.3 Marine Assurance

Woodside's marine assurance is managed by the Marine Assurance Team of the Logistics Function in accordance with Woodside's Marine Offshore Vessel Assurance Procedure. The Woodside process is based on industry standards and consideration of guidelines and recommendations from recognised industry organisations such as Oil Companies International Marine Forum and International Maritime Contractors Association.

The process is mandatory for all vessels (other than tankers and floating production storage and offloading vessels) hired for Woodside operations, including for short term hires (i.e. <3 months in duration). It defines applicable marine offshore assurance activities, ensuring all vessel operators operate seaworthy vessels that meet the requirements for a defined scope of work and are managed with a robust safety management system.

The process is multi-faceted and encompasses the following marine assurance activities:

- offshore vessel management system assessment (OVMSA)
- DP system verification
- vessel inspections
- OVID or condition and suitability assessment
- project support for tender review, evaluation and pre/post contract award.

Vessel inspections are used to verify actual levels of compliance with the company's Safety Management System, the overall condition of the vessel and the status of the planned maintenance system onboard. Woodside Marine Assurance Specialist will conduct a risk assessment on the vessel to determine the level of assurance applied and the type of vessel inspection required.

Methods of vessel inspection may include, and are not limited to:

- Woodside Marine Vessel Inspection
- OCIMF OVID Inspection
- IMCA CMID Inspection
- Marine Warranty Survey.

Upon completion of the marine assurance process, to confirm that identified concerns are addressed appropriately and conditions imposed are managed, the Woodside Marine Assurance Team will issue the vessel a statement of approval. Should a vessel not meet the requirements of the Woodside Marine Offshore Vessel Assurance Process and be rejected, there does exist an opportunity to further scrutinise the proposed vessel.

Where a vessel inspection and/or OVMSA verification review is not available and all reasonable efforts based on time and resource availability have been made to complete this (e.g. short term

vessel hire), the Marine Assurance Specialist Offshore may approve the use of an alternate means of inspection, known as a risk assessment.

#### 7.7.2.4 Risk Assessment

Woodside conducts a risk assessment of vessels where either an OVMSA Verification Review and/or vessel inspection cannot be completed. This is not a regular occurrence and is typically used when the requirements of the assurance process are unable to be met or the processes detailed are not applicable to a proposed vessel(s). The Marine Vessel Risk Assessment will be conducted by the Marine Assurance Specialist, where the vessel meets the short term hire prerequisites.

The risk assessment is a semi-quantitative method of determining what further assurance process activity, if any, is required to assure a vessel for a particular task or role. The process compares the level of management control a vessel is subject to against the risk factors associated with the activity or role.

Several factors are assessed as part of a vessel risk assessment, including:

- Management control factors:
  - company audit score (i.e. management system)
  - vessel HSE incidents
  - vessel Port State Control deficiencies
  - instances of Port State Control vessel detainment
  - years since previous satisfactory vessel inspection
  - age of vessel
  - contractors' prior experience operating for Woodside.
- Activity risk factors:
  - people health and safety risks (a function of the nature of the work and the area of operation)
  - environmental risks (a function of environmental sensitivity, activity type and magnitude of potential environment damage (e.g. largest credible oil spill scenario)
  - value risk (likely time and cost consequence to Woodside if the vessel becomes unusable)
  - reputation risk
  - exposure (i.e. exposure to risk based on duration of project)
  - industrial relations risk.

The acceptability of the vessel or requirement for further vessel inspections or audits is based on the ratio of vessel score to activity risk. If the vessel management control is not deemed to appropriately manage activity risk, a satisfactory company audit and/or vessel inspection may be required before awarding work.

The risk assessment is valid for the period a vessel is on hire and for the defined scope of work.

#### 7.7.3 Management of Non-conformance

Woodside classifies non-conformances with EPOs and standards in this EP as environmental incidents. Woodside employees and contractors are required to report all environmental incidents,

and these are managed as per Woodside's HSE Event Reporting and Investigation Procedure which includes learning requirements.

An internal computerised database called First Priority is used to record and report these incidents. Details of the event, immediate action taken to control the situation, investigation outcomes and corrective actions to prevent reoccurrence are all recorded. Corrective actions are monitored using First Priority and closed out in a timely manner.

Woodside uses a consequence matrix for classification of environmental incidents, with the significant categories being A, B and C (as detailed in Section 2). Detailed investigations are completed for all categories A, B, C and high potential environmental incidents.

## 7.7.4 Review

### 7.7.4.1 Management Review

Within the Environment Function, senior management regularly monitor and review environmental performance and the effectiveness of managing environmental risks and performance. Within each Function and Business Unit Leadership Team (e.g. Global Wells and Seismic), managers review environmental performance regularly, including through quarterly HSE review meetings.

Woodside's Projects Environment Team will perform six-monthly reviews of the effectiveness of the implementation strategy and associated tools. This will involve reviewing the:

- survey activity KPIs
- tools and systems to monitor environmental performance (detailed in Section 7.7.1)
- lessons learned about implementation tools and throughout each campaign
- reviews of oil spill arrangements and testing are performed in accordance with Section 7.10.

### 7.7.4.2 Learning and Knowledge Sharing

Learning and knowledge sharing occurs via a number of different methods including:

- event investigations
- event bulletins
- after action review conducted at the end of each well, including review of environmental incidents as relevant
- ongoing communication with vessel operators
- formal and informal industry benchmarking
- cross asset learnings
- engineering and technical authorities discipline communications and sharing.

### 7.7.4.3 Review of Impacts, Risks and Controls Across the Life of the EP

If activities described in this EP do not occur continuously or sequentially, before recommencing activities after a cessation period greater than 12 months, impacts, risks and controls will be reviewed.

The process will identify or review impacts and risks associated with the newly-commencing activity, and will identify or review controls to ensure impacts and risks remain/are reduced to ALARP and

acceptable levels. Information learned from previous activities conducted under this EP will be considered. Controls which have previously been excluded on the basis of proportionality will be reconsidered. Any required changes will be managed by the Management of Change (MOC) process outlined below (Section 7.8).

## 7.8 Management of Change and Revision

### 7.8.1 Environment Plan Management of Change

Changes to the PGGAP are managed in accordance with Woodside's Environmental Approval Requirements Australia Commonwealth Guideline. Management of changes relevant to this EP, concerning the scope of the activity description (Section 3) including: review of advances in technology at stages where new equipment may be selected such as vessel contracting; changes in understanding of the environment, DCCEEW EPBC Act listed threatened and migratory species status, Part 13 statutory instruments (recovery plans, threat abatement plans, conservation advice, wildlife conservation plans) and current requirements for AMPs (Section 4); and potential new advice from external stakeholders (Section 5), will be managed in accordance with Regulation 39 of the Environment Regulations.

Risk will be assessed in accordance with the environmental risk management methodology (Section 2.6) to determine the significance of any potential new environmental impacts or risks not provided for in this EP. Risk assessment outcomes are reviewed in compliance with Regulation 39 of the Environment Regulations.

Minor changes where a review of the activity and the environmental risks and impacts of the activity do not trigger a requirement for a formal revision under Regulation 38 or 39 of the Environment Regulations, will be considered a 'minor revision'. Minor administrative changes to this EP, where an assessment of the environmental risks and impacts is not required (e.g. document references, phone numbers, etc.), will also be considered a 'minor revision'. Minor revisions as defined above will be made to this EP using Woodside's document control process. Minor revisions will be tracked in an MOC Register to ensure visibility of cumulative risk changes, as well as enable internal EP updates/reissuing as required. This document will be made available to NOPSEMA during regulator environment inspections.

### 7.8.2 OPEP Management of Change

Relevant documents from the OPEP will be reviewed in the following circumstances:

- implementation of improved preparedness measures
- a change in the availability of equipment stockpiles
- a change in the availability of personnel that reduces or improves preparedness and the capacity to respond
- the introduction of a new or improved technology that may be considered in a response for this activity
- to incorporate, where relevant, lessons learned from exercises or events
- if national or state response frameworks and Woodside's integration with these frameworks changes.

Where changes are required to the OPEP, based on the outcomes of the reviews described above, they will be assessed against Regulation 38 and 39 to determine if EP, including OPEP, resubmission is required (see Section 7.8.1). Changes with potential to influence minor or technical



changes to the OPEP are tracked in management of change records, project records and incorporated during internal updates of the OPEP or the five-year revision.

## 7.9 Record Keeping

Compliance records (outlined in MC in Section 6) will be maintained.

Record keeping will be in accordance with Regulation 22(15) that addresses maintaining records of emissions and discharges.

## 7.10 Reporting

To meet the EPOs and standards outlined in this EP, Woodside reports at a number of levels, as outlined in the next sections.

### 7.10.1 Routine Reporting (Internal)

#### 7.10.1.1 Daily Progress Reports and Meetings

Daily reports for survey activities are prepared and issued to key support personnel and stakeholders, by relevant managers responsible for the activity. The report provides performance information about the survey activities, health, safety and environment, and current and planned work activities.

Meetings between key personnel are used to transfer information, discuss incidents, agree plans for future activities and develop plans and accountabilities for resolving issues.

#### 7.10.1.2 Regular HSE Meetings

Regular dedicated HSE meetings are held with the offshore and office-based management and advisers to address targeted HSE incidents and initiatives. Minutes of these meetings are produced and distributed as appropriate.

#### 7.10.1.3 Performance Reporting

Monthly and quarterly performance reports are developed and reviewed by the Function and Business Unit Leadership Teams (e.g. Global Wells and Seismic). These reports cover a number of subject matters, including:

- HSE incidents (including high potential incidents and those related to this EP) and recent activities.
- Corporate KPI targets, which include environmental metrics.
- Outstanding actions as a result of audits or incident investigations.
- Technical high and low lights.

### 7.10.2 Routine Reporting (External)

#### 7.10.2.1 Ongoing Consultation

Although consultation for the purpose of Regulation 25 is complete, in accordance with Regulation 22(9) of the Environment Regulations, the implementation strategy must provide for appropriate

consultation with relevant authorities of the Commonwealth, a State or Territory and other relevant interested persons or organisations.

Woodside proposes to undertake the engagements with directly impacted relevant persons and additional persons listed in Table 7-2 Relevant new information identified during ongoing consultation will be assessed using the EP Management of Knowledge (refer to Section 7.7.1.2 and Management of Change Process (refer to Section 7.8).

Woodside hosts community forums at which members are provided updates on Woodside activities on a regular basis (for example community reference group meetings). Representatives who present at those meetings are from community and industry and include Woodside, State Government (for instance relevant Regional Development Commissions), Local Government, Indigenous Groups, industry representative bodies, Community and industry organisations.

Relevant persons, additional persons and those who are merely interested in the activities, can otherwise remain up to date on this activity through subscribing to the Woodside website, or by reading the publicly available version of the EP on NOPSEMA’s website, where available.

Should consultation feedback be received following EP acceptance that identifies a measure or control that requires implementation or update to meet the intended outcome of consultation (see Appendix F Consultation), Woodside will apply its EP Management of Knowledge process (refer to Section 7.7.1.2 and Management of Change Process (refer to Section 7.8), as appropriate.

Woodside has established and maintains a publicly available, up to date and interactive map to provide stakeholders with updated information on activities being conducted as part of the PGGAP particularly during SIMOPS. The interactive map is available on Woodside’s website.

The ongoing consultation engagements that Woodside intends to progress for this EP are set out in the table below.

**Table 7-2: Ongoing consultation engagements**

Report/ Information	Recipient	Purpose	Frequency	Content
Program of Ongoing Engagement with Traditional Custodians (Appendix G Program of Ongoing Engagement with Traditional Owners)	Relevant cultural authorities.	Identification, assessment and consideration of cultural values relevant to the Operational Area or EMBA	Ongoing	Assessment of cultural values. Any relevant new information on cultural values will be assessed using the EP Management of Knowledge (refer to Section 7.5.1.2) and Management of Change Process (refer to Section 7.6).
Emails / Meetings	Relevant cultural authorities	Identification, assessment and consideration of cultural values relevant to the Operational Area and EMBA	Ongoing	Assessment of cultural values Any new information on cultural values will be assessed using the EP Management of Knowledge (ref to Section 7.5) and Management of Change Process (refer to Section 7.6).

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Notification (email)	AHO	As requested by AMSA during consultation.	No less than 4 weeks prior to commencement.	PS 1.2 (Section 6.5.1) Date of activity start.
Updates (email)			As required.	Changes to planned activities
Notification (email)	AMSA	As requested by AMSA during consultation	At least 24-48 hours before operations commence.	PS 1.3 (Section 6.5.1) Date of activity start.
Update (email)			Provide updates to the AHO and JRCC should there be changes to the activity.	Changes to planned activities
Notification (email)	DEMIRS	Good practice	At least 10 days prior to commencement	Date of activity start and end.
Notification (email)	DNP	As required under the class approval for activities within IUCN Category VI zone	Prior to activities within the Montebello Multiple Use Zone.	Date of activity start and end.
Notification (email)	DPIRD WAFIC Pilbara Line Fishery Pilbara Trap Fishery Pilbara Trawl Fishery Mackerel Managed Fishery Recfishwest	As requested during consultation and/or organisation	At least 10 days prior to commencement and following completion of activities.	PS 1.4 (Section 6.5.1) Date of activity start and end.
Notification (email)	All relevant persons to the proposed activity	Notification of significant change	As appropriate	Notification of significant change
Notification (email)	DNP	Notification of activity change requested by DNP	As appropriate	Date of activity start and end. 10 days prior to activities commencing. Changes to planned activities result in a new impact to the marine park. Notify the Marine Compliance Duty Officer within 24 hours.
Notification (email)	DBCA	Notification in the event of hydrocarbon release	As required	Notification in the event of hydrocarbon release to DBCA's Pilbara regional office
Notification (email)	Tuna Australia	As requested by Tuna Australia during consultation.	As appropriate	Notification if activity has potential to impact vessel navigation, fishing activities, and/or the

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				conservation of fish resources consistent with the Offshore Petroleum and Greenhouse Gas Storage Act 2006
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**7.10.2.2 Start and End Notifications of the PGGAP**

In accordance with Regulation 54, Woodside will notify NOPSEMA of the commencement of the PGGAP at least ten days before the activity commences, and will notify NOPSEMA within ten days of completing the activity.

**7.10.2.3 Environmental Performance Review and Reporting**

In accordance with applicable environmental legislation for the activity, Woodside is required to report information about environmental performance to the appropriate regulator. Regulatory reporting requirements are summarised in Table 7-3.

**Table 7-3: Routine external reporting requirements**

Report	Recipient	Frequency	Content
Monthly Recordable Incident Reports	NOPSEMA	Monthly, by the 15th of each month.	Details of recordable incidents that have occurred during the PGGAP for previous month (if applicable).
Environmental Performance Report	NOPSEMA	Annually, with the first report submitted within 12 months of the commencement of the PGGAP covered by this EP (as per the requirements of Regulation 22(7)).	Compliance with EPOs, controls and standards outlined in this EP, in accordance with the Environment Regulations.

**7.10.2.4 End of the Environmental Plan**

The EP will end when Woodside notifies NOPSEMA that the PGGAP has ended and all of the obligations identified in this EP have been completed, and NOPSEMA has accepted the notification, in accordance with Regulation 46 of the Environment Regulations.

**7.10.3 Incident Reporting (Internal)**

The process for reporting environmental incidents is described in Section 7.10.4 of this EP. It is the responsibility of the Woodside Project Manager to ensure reporting of environmental incidents meets Woodside and regulatory reporting requirements as detailed in the Woodside HSE Event Reporting and Investigation Procedure and this section of this EP.

**7.10.4 Incident Reporting (External) – Reportable and Recordable**

**7.10.4.1 Reportable Incidents**

**7.10.4.1.1 Definition**

A reportable incident is defined under Regulation 5 of the Environment Regulations as:

- ‘an incident relating to the activity that has caused, or has the potential to cause, moderate to significant environmental damage’.

A reportable incident for the PGGAP is:

- an incident that has caused environmental damage with a Consequence Level of Moderate (C) or above (as defined under Woodside's Risk Table (refer to Section 2.5)).
- an incident that has the potential to cause environmental damage with a Consequence Level of Moderate (C) or above (as defined under Woodside's Risk Table (refer to Section 2.5)).

The environmental Risk assessment for the PGGAP (Section 2.5) has not identified any risks with a potential consequence level of C+ for environment. All incidents with actual or potential environmental consequences will be investigated fully. Where an actual or potential environment consequence of C+ is identified this incident will still be classified as a reportable incident and appropriate notifications completed.

Any such incidents represent potential events which would be reportable incidents. Incident reporting is performed with consideration of NOPSEMA (2014) guidance stating, 'if in doubt, notify NOPSEMA', and assessed on a case-by-case basis to determine if they trigger a reportable incident as defined in this EP and by the Environment Regulations.

#### **7.10.4.1.2 Notification**

NOPSEMA will be notified of all reportable incidents, according to the requirements of Regulations 47, 48 and 49 of the Environment Regulations. Woodside will:

- Report all reportable incidents to the regulator (orally) as soon as practicable (ASAP), but within two hours of the incident or of its detection by Woodside.
- Provide a written record of the reported incident to NOPSEMA, the National Offshore Petroleum Titles Administrator (NOPTA) and the Department of the responsible State Minister (DEMIRS) ASAP after orally reporting the incident.
- Complete a written report for all reportable incidents using a format consistent with the NOPSEMA Form FM0831 – Reportable Environmental Incident which must be submitted to NOPSEMA ASAP, but within three days of the incident or of its detection by Woodside.
- Provide a copy of the written report to the NOPTA and DEMIRS, within seven days of the written report being provided to NOPSEMA.

AMSA will be notified of oil spill incidents ASAP after their occurrence, and DCCEEW notified if MNES are to be affected by the oil spill incident.

#### **7.10.4.2 Recordable Incidents**

##### **Definition**

A recordable incident as defined under Regulation 5 of the Environment Regulations is an incident arising from the activity that 'breaches an environmental performance outcome or environmental performance standard, in the EP that applies to the activity, that is not a reportable incident'.

##### **Notification**

NOPSEMA will be notified of all recordable incidents, according to the requirements of Regulation 50(4), no later than 15 days after the end of the calendar month using the NOPSEMA Form – Recordable Environmental Incident Monthly Summary Report detailing:

- All recordable incidents that occurred during the calendar month.
- All material facts and circumstances concerning the recordable incidents that the operator knows or is able, by reasonable search or enquiry, to find out.
- Any action taken to avoid or mitigate any adverse environment impacts of the recordable incidents.

- The corrective action that has been taken, or is proposed to be taken, to prevent similar recordable incidents.
- The action that has been taken, or is proposed to be taken, to prevent a similar incident occurring in the future.

#### **7.10.4.3 Other External Incident Reporting Requirements**

In addition to the notification and reporting of environmental incidents defined under the Environment Regulations and Woodside requirements, Table 7-4 describes the incident reporting requirements that also apply in the Operational Areas.

**Table 7-4: External Incident Reporting Requirements**

Event	Responsibility	Notifiable party	Notification requirements	Contact	Contact detail
Any marine incidents during PGGAP	Vessel Master	AMSA	Incident Alert Form 18 as soon as reasonably practicable* Within 72 hours after becoming aware of the incident, submit Incident Report Form 19	AMSA	<a href="mailto:reports@amsa.gov.au">reports@amsa.gov.au</a>
Oil pollution incidents in Commonwealth waters	Vessel Master	AMSA Rescue Coordination Centre (RCC)	As per Article 8 and Protocol I of MARPOL within two hours via the national emergency 24-hour notification contacts and a written report within 24 hours of the request by AMSA	AMSA RCC Australia	If the ship is at sea, reports are to be made to: Free call: 1800 641 792 Phone: 08 9430 2100 (Fremantle)
Oil pollution incidents in Commonwealth waters	Vessel Master	AMSA	Without delay as per <i>Protection of the Sea Act</i> , part II, section 11(1), AMSA RCC notified verbally via the national emergency 24-hour notification contact of the hydrocarbon spill; follow up with a written Pollution Report ASAP after verbal notification	RCC Australia	Phone: 1800 641 792 or +61 2 6230 6811 AFTN: YSARYCYX
Any oil pollution incident which has the potential to	Vessel Master	DCCEEW	Reported verbally, ASAP	Director of National Parks	Phone: 02 6274 2220

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Event	Responsibility	Notifiable party	Notification requirements	Contact	Contact detail
enter a National Park or requires oil spill response activities to be conducted within a National Park					
Activity causes unintentional death of or injury to fauna species listed as Threatened or Migratory under the EPBC Act	Vessel Master	DCCEEW	Within seven days of becoming aware	Secretary of the DCCEEW	Phone: 1800 803 772 Email: <a href="mailto:protected.species@environment.gov.au">protected.species@environment.gov.au</a>

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The following activities should also be reported to AMSA via RCC Australia by the Vessel Master:

- loss of plastic material
- garbage disposed of in the sea within 12 nm of land (garbage includes food, paper, bottles, etc)
- any loss of hazardous materials

For oil spill incidents, other agencies and organisations will be notified as appropriate to the nature and scale of the incident as per procedures and contact lists in the Oil Pollution Emergency Arrangements (Australia) and the Oil Pollution First Strike Plan (Appendix I).

External incident reporting requirements under the *OPGGS (Safety) Regulations*, including under Subregulation 2.42, notices and reports of dangerous occurrences will be reported to NOPSEMA under the approved activity safety cases.

## 7.11 Emergency preparedness and response

### 7.11.1 Overview

Under Regulation 22(8), the implementation strategy must contain an oil pollution emergency plan (OPEP) and provide for the updating of the OPEP. Regulation 22(9) outlines the requirements for the OPEP which must include adequate arrangements for responding to and monitoring of oil pollution.

A summary of how this EP and supporting documents address the various requirements of Environment Regulations relating to oil pollution response arrangements is shown in Table 7-5.

**Table 7-5: Oil pollution preparedness and response overview**

Content	Environment Regulations Reference	Document/Section Reference
Details (oil pollution response) control measures that will be used to reduce the impacts and risks of the activity to ALARP and an acceptable level	Regulation 21 (5), (6), 22(2)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix H).
Describes the oil pollution emergency plan	Regulation 22(8)	Environment Plan: Woodside’s oil pollution emergency plan has the following components: Oil Pollution Emergency Arrangements (Australia) Oil Pollution First Strike Plan (Appendix I) Oil Spill Preparedness and Response Mitigation Assessment (Appendix H). In accordance with Regulation 56 of the Environment Regulations the Woodside Oil Pollution Emergency Arrangements (Australia) was provided with the Scarborough Drilling and Completions EP, accepted by NOPSEMA on 1 December 2023.

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Content	Environment Regulations Reference	Document/Section Reference
Details the arrangements for responding to and monitoring oil pollution (to inform response activities), including control measures	Regulation 22(9)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix H). Oil Pollution First Strike Plan (Appendix I).
Details the arrangements for updating and testing the oil pollution response arrangements	Regulation 22(8), (12), (13) and (14)	Environment Plan: Section 7.11.7. Oil Spill Preparedness and Response Mitigation Assessment (Appendix H).
Details provisions for monitoring impacts to the environment from oil pollution and response activities	Regulation 22(10)	Oil Spill Preparedness and Response Mitigation Assessment (Appendix H).
Demonstrates that the oil pollution response arrangements are consistent with the national system for oil pollution preparedness and control	Regulation 22(11)	Oil Pollution Emergency Arrangements (Australia).

### 7.11.2 Emergency Response Training

Regulation 22(4) requires that the implementation strategy includes measures to ensure that employees and contractors have the appropriate competencies and training. Woodside has conducted a risk-based training needs analysis on positions required for effective emergency response.

**Table 7-6: Emergency Response Training Requirements**

IMT Position	Minimum Competency
Corporate Incident Management Team (CIMT) Incident Commander and Deputy Incident Commander	<ul style="list-style-type: none"> <li>• IMT Fundamentals Course (internal course) or equivalent</li> <li>• ICS100/200</li> <li>• IMO3 or equivalent spill response specialist level with an oil spill response organisation (OSRO)</li> <li>• Participation in L2 activation, exercise or skills maintenance</li> </ul>
Operations, Planning, Logistics and Finance Sections, and other rostered member of the CIMT	<ul style="list-style-type: none"> <li>• IMT Fundamentals Course or equivalent</li> <li>• ICS 100/200</li> <li>• Oil Spill theory</li> </ul> Participation in L2 activation, exercise or skills maintenance
Environment Unit Lead	<ul style="list-style-type: none"> <li>• IMT Fundamentals course</li> <li>• ICS 100/200</li> <li>• IMO2 or equivalent spill response specialist level with an OSRO</li> </ul> Participation in L2 activation, exercise or skills maintenance

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### Note on competency/equivalency

In 2023 Woodside undertook a review of incident and crisis systems, processes and tools to assess whether these were fit-for purpose and has rolled out a change to the Crisis and Emergency Management training and the oil spill response training requirements for CIMT roles.

The revised IMT Fundamentals training Program aligns with the performance requirements of the PMAOMIR320 – Manage Incident Response Information and PMAOM0R418 - Coordinate Incident Response.

In 2023, Woodside took the decision to align its global incident command arrangements to the Incident Command System (ICS). As such all rostered members of the Incident Management Team are trained up to ICS 200.

In addition to baseline incident management training, all rostered members of the CIMT undertake a level of hydrocarbon spill response training. Depending upon the role, this may take the form of IMO training or completion of Woodside's internal oil spill training course (OSREC) which involves the completion of two online AMSA Modules (*Introduction to National Plan and Incident Management; and Introduction to Oil Spills*) and face-to-face training.

Woodside Learning Services (WLS) are responsible for collating and maintaining personnel training records. The HSP Dashboard reflects the competencies required for each oil spill role (IMT/operational).

### 7.11.3 Emergency Response Preparation

The Corporate Incident Management Team (CIMT), based in Woodside's head office in Perth, is the onshore coordination point for an offshore emergency. The CIMT is staffed by an appropriately skilled team available on call 24-hours a day. The purpose of the team is to coordinate incidents, maintain the safety of personnel, minimise damage to the environment and facilities, and to liaise with external agencies. A description of Woodside's Incident Command Structure and arrangements is further detailed in the Woodside Oil Pollution Emergency Arrangements (Australia) (OPEA).

Woodside has a number of Emergency Response Plans (ERP) in place, which detail the actions and resources available in the event of an incident. Electronic copies of the ERPs are available from the Woodside Virtual Bookshelves and the S&EM intranet page. Hard controlled copies are available on the facilities and in the CIMT.

In addition, the Emergency Preparedness MSPS (M06) is in place to assure that in the event of an incident, the organisation is appropriately prepared for all necessary actions which may be required for the protection of People, Environment, Asset, Reputation and Livelihood.

The GWA Geophysical and Geotechnical Survey Emergency Response Plan will contain instructions for vessel emergency, medical emergency, search and rescue, reportable incidents, incident notification, contact information and activation of the Contractor's emergency centre and Woodside Communication Centre

### 7.11.4 Initial Response to Incident

In an emergency of any type, the Vessel Master will assume overall onsite command and act as the Incident Controller (IC). All persons aboard the vessel will be required to act under the IC's directions. The vessel will maintain communications with the onshore Project Manager and/or other emergency services. Emergency response support can be provided by the Contractor's emergency centre or Woodside Communication Centre if requested by the IC.

The survey vessels will have on-board equipment for responding to emergencies including medical, firefighting and hydrocarbon spill response equipment.

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### 7.11.5 Oil and Other Hazardous Materials Spill

A significant hydrocarbon spill during the PGGAP is unlikely, but should such an event occur, it has the potential to cause serious environmental and reputational damage if not managed properly. The Woodside OPEA (Australia) document, supported by the GWA Geophysical and Geotechnical Survey Oil Pollution First Strike Plan which provides tactical response guidance to the activity (Appendix I) of this EP, covers spill response for this PGGAP.

The Security & Emergency Management Function is responsible for the management of Woodside's hydrocarbon spill response equipment and for the maintenance of hydrocarbon spill preparedness and response documentation. In the event of a major spill, Woodside will request that AMSA (administrator of the National Plan) provides support to Woodside through advice and access to equipment, people and liaison. The interface and responsibilities, as defined under the National Plan, are described in the OPEA (Australia). AMSA and Woodside have a Memorandum of Understanding in place to support Woodside in the event of a hydrocarbon spill.

The GWA Geophysical and Geotechnical Survey Oil Pollution First Strike Plan provides immediate actions required to commence a response.

Vessels will have SOPEPs in accordance with the requirements of MARPOL 73/78 Annex I. These plans outline responsibilities, specify procedures and identify resources available in the event of a hydrocarbon or chemical spill from vessel activities. The GWA Geophysical and Geotechnical Survey Oil Pollution First Strike Plan is intended to work in conjunction with the SOPEPs, if hydrocarbons are released to the marine environment from a vessel.

Woodside has established EPOs, EPSs and MCs to be used for hydrocarbon spill response during the PGGAP, as detailed in Appendix H.

### 7.11.6 Emergency and Spill Response

Woodside categorises incidents in relation to response requirements as follows:

**Level 1 Incident** – Level 1 incidents are those that can be resolved through the use of existing resources, equipment and personnel. A Level 1 incident is contained, controlled and resolved by site / regionally based teams using existing resources and functional support services.

**Level 2 Incident** – Level 2 incidents are characterised by a response that requires external operational support to manage the incident. It is triggered in the event the capabilities of the tactical level response are exceeded. This support is provided to the activity via the activation of all, or part of, the responsible ICC.

**Level 3 Incident** – A Level 3 incident or crisis is identified as a critical event that seriously threatens the organisation's People, the Environment, company Assets, Reputation, Livelihood or essential Services. At Woodside, the Crisis Management Team (CMT) manages the strategic impacts in order to respond to and recover from the threat to the company (material impacts, litigation, legal & commercial, reputation etc.). The ICC may also be activated as required to manage the operational response to the Level 3 Incident.

### 7.11.7 Emergency and Spill Response Drills and Exercises

Testing of Woodside's capability to respond to incidents will be conducted in alignment with the Emergency and Crisis Management Procedure. The frequency of these tests will be conducted as prescribed in Table 7-7. The company emergency response testing regime is

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aligned to existing or developing risks associated with Woodside’s operations and activities. Corporate hazards/risks outlined in the corporate risk register, respective Safety Cases or project Risk Registers, are the key reference point for emergency management and crisis management exercise development. External participants may be invited to attend crisis exercises and may include government agencies, specialist service providers, oil spill response organisations or industry members with which we have mutual aid arrangements.

The objective is to exercise procedures, skills and teamwork of the Emergency Response and Command Teams in their ability to respond to MAEs and MEEs. After each exercise, the team holds a debrief session, during which the exercise is reviewed. Any lessons learnt or areas for improvement are identified and incorporated into emergency procedures where appropriate.

**Table 7-7: Testing of response capability**

<b>Response Category</b>	<b>Scope</b>	<b>Response Testing Frequency</b>	<b>Response Testing Objective</b>
<b>Level 1 Response</b>	Exercises are vessel specific	At least one Level 1 First Strike drill must be conducted during an activity.	a) Comprehensive exercises test elements of the Oil Pollution First Strike Plan (Appendix I First Strike Plan). b) Emergency drills are scheduled to test other aspects of the Emergency Response Plan.
<b>Level 2 Response</b>	Exercises are vessel specific	Level 2 Emergency Management exercises are relevant to activities with an operational duration of one month or greater. At least one Emergency Management exercise per vessel per campaign must be conducted within the first month of commencing the activity and then at every 6 month hire period thereafter, where applicable based on duration.	c) Testing both the facility IMT response and/or that of the CIMT following handover of incident control.
<b>Level 3 Response</b>	Exercises are relevant to all Woodside assets	The number of CMT exercises conducted each year is determined by the Chief Executive Officer, in consultation with the Vice President of Security and Emergency Management.	d) Test Woodside’s ability to respond to and manage a crisis level incident.

The activity specific GWA Geophysical and Geotechnical Survey Oil Pollution First Strike Plan will be tested in alignment with Table 7-7. This ensures personnel are familiar with spill response procedures, reporting requirements and roles/responsibilities.

### 7.11.8 Hydrocarbon Spill Response Testing of Arrangements

There are a number of arrangements which, in the event of a spill, will underpin Woodside’s ability to implement a response across its petroleum and greenhouse gas activities. In order to ensure these arrangements are adequately tested, the Capability Development Team within Security and Emergency Management ensures tests are conducted in alignment with the Hydrocarbon Spill Testing of Arrangements Schedule.

Woodside’s arrangements for spill response are common across its Australian operating assets and activities to ensure the controls are consistent. The overall objective of testing

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these arrangements is to ensure that Woodside maintains an ability to respond to a hydrocarbon spill, specifically to:

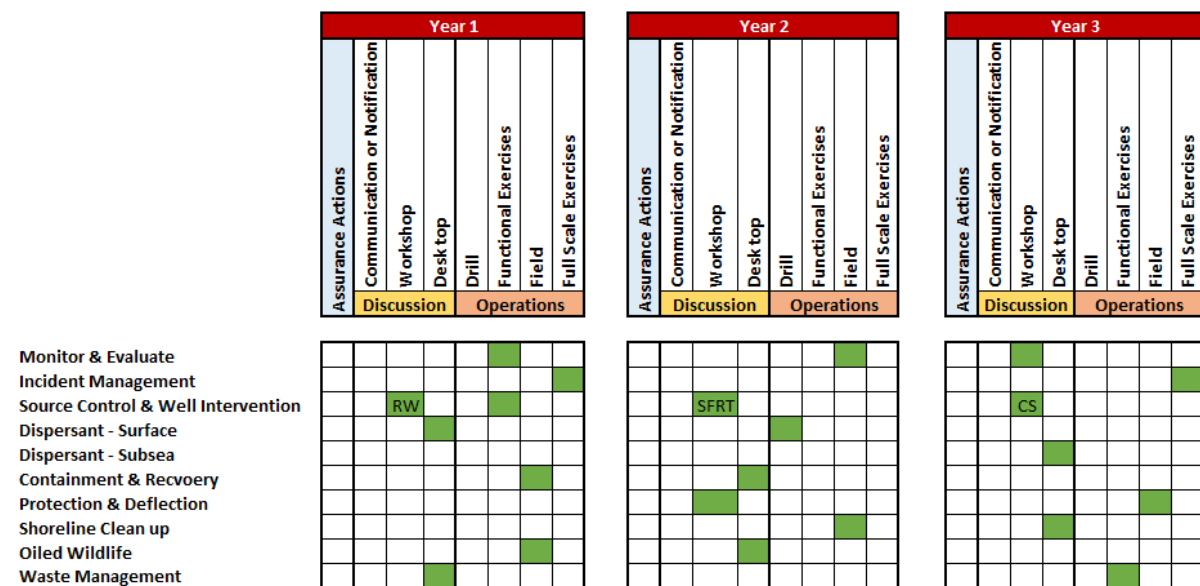
- Ensure relevant responders, contractors and key personnel understand and practise their assigned roles and responsibilities.
- Test response arrangements and actions to validate response plans.
- Ensure lessons learned are incorporated into Woodside’s processes and procedures and improvements are made where required.

If new response arrangements are introduced, or existing arrangements significantly amended, additional testing is undertaken accordingly. Additional activities or activity locations are not anticipated to occur; however, if they do, testing of relevant response arrangements will be undertaken as soon as practicable.

In addition to the testing of response capability described in Table 7-7, up to eight formal exercises are planned annually, across Woodside, to specifically test arrangements for responding to a hydrocarbon spill to the marine environment.

### 7.11.8.1 Testing of Arrangements Schedule

Woodside’s Testing of Arrangements Schedule (Figure 7-2) aligns with international good practice for spill preparedness and response management; the testing is compatible with the IPIECA Good Practice Guide and the Australian Institute for Disaster Resilience (AIDR) Australian Emergency Management Arrangements Handbook. If a spill occurs, enacting these arrangements will underpin Woodside’s ability to implement a response across its petroleum and greenhouse gas activities.



**Figure 7-2: Indicative 3-yearly testing of arrangements schedule**

The hydrocarbon spill arrangements shown in the rows of the schedule are tested against Woodside’s regulatory commitments. Each arrangement has a support agency/company and an area to be tested (e.g., capability, equipment and personnel). For example, an arrangement

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could be to test Woodside's personnel capability for conducting scientific monitoring, or the ability of the Australian Marine Oil Spill Centre to provide response personnel and equipment.

The vertical columns relate to how hydrocarbon spill arrangements will be tested over the 3-year rolling schedule. The sub-heading for the column describes the standard method of testing likely to be undertaken (e.g., discussion exercise, desktop exercise), and the green cells indicate the arrangements that could be tested for each method.

Some arrangements may be tested across multiple exercises (e.g., critical arrangements) or via other 'additional assurance' methods outside the formal Testing of Arrangements Schedule that also constitute sufficient evidence of testing of arrangements (e.g., audits, no-notice drills, internal exercises, assurance drills).

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### **7.11.9 Cyclone and Dangerous Weather Preparation**

Tropical cyclones and other severe weather events are a potential risk to the safety and health of personnel and can potentially cause spills of hazardous materials into the environment from infrastructure and/or damaged vessels.

The survey vessels receive regular forecasts from the Bureau of Meteorology (BoM). If a cyclone (or severe weather event) is forecast, the path and its development will be plotted and monitored using the BoM data. If there is the potential for the cyclone (severe weather event) to affect the PGGAP, the vessel's Cyclone Contingency Plan will be actioned. If required, vessels can transit from the proposed track of the cyclone (severe weather event).

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## 9. LIST OF TERMS AND ACRONYMS

µm	Micrometer
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
AHO	Australian Hydrographic Office
AIDR	Australian Institute for Disaster Resilience
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
AMOSC	Australian Maritime Oil Spill Centre
AMP	Australian Marine Park
AMSA	Australian Maritime Safety Authority
APPEA	Australian Petroleum Production and Exploration Association
AS/NZS	Australian Standard/New Zealand Standard
ATSB	Australian Transport Safety Bureau
AusSAR	Australian Search and Rescue
AUV	Autonomous Underwater Vehicle
BIA	Biologically Important Areas
BoM	Bureau of Meteorology
BTAC	Buurabalayii Thalanyii Aboriginal Corporation
CA	Corporate Affairs Adviser
CAES	Catch and Effort System
CAR	Corrective Action Register
CCP	Cyclone Contingency Plan
CEO	Chief Executive Officer
CHP	Commonwealth Heritage Places
CIMT	Corporate Incident Management Team
CMID	Common Marine Inspection Document
CMT	Crisis Management Team
CPT	Cone Penetration Testing
CPTU	Piezocone Penetration Test
CS	Cost/Sacrifice
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CV	Company Values
dB	Decibel

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DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage
DEWHA	Department of the Environment, Water, Heritage and the Arts
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DEE	Department of Environment and Energy
DNP	Director of National Parks
DoT	Department of Transport
DP	Dynamic Positioning
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities
E&P	Exploration and Production
EA	Environment Adviser
EEZ	Exclusive Economic Zone
EMS	Environmental Management System
EP	Environment Plan
EPBC Act 1999	Environment Protection and Biodiversity Conservation Act, 1999.
EPO	Environmental Performance Objective
EPS	Environmental Performance Standard
ERP	Emergency Response Plan
ESD	Ecologically Sustainable Development
F	Feasibility
FPSO	Floating Production Storage and Offloading
g/m <sup>2</sup>	Grams per square metre
GNSS	Global Navigation Satellite Systems
GP	Good Practice
GPGT	Geophysical and Geotechnical
GTO	Geotechnical Operations
GWA	Goodwyn Alpha
HAZID	Hazard Identification
HD	High Definition
HS	Health and Safety
HSE	Health, Safety and Environment

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HSP	Hydrocarbon Spill Preparedness
Hz	Hertz
IAPP	International Air Pollution Prevention
IC	Incident Controller
ICLDP	Incident and Crisis Leadership Development Program
ICOMOS	International Council on Monuments and Sites
ILUA	Indigenous Land Use Agreements
IMCA	International Maritime Contractors Association
IMCRA	Integrated Marine and Coastal Regionalisation of Australia
IMO	International Maritime Organisation
IMS	Invasive Marine Species
IPIECA	International Petroleum Industry Environmental Conservation Association
IS	Implementation Strategy
ISO	International Standards Organisation
ISPP Certificate	International Sewage Pollution Prevention Certificate
ITF	Indonesian Throughflow
IUCN	International Union for Conservation of Nature
JRCC	Joint Rescue Coordination Centre
JSA	Job Safety Analysis
KAC	Kariyarra Aboriginal Corporation
KEF	Key Ecological Feature
kHz	Kilohertz
km	Kilometre
L	Litres
LCS	Legislation, Codes and Standards
LNG	Liquefied Natural Gas
MAE	Major Accident Event
MBES	Multibeam Echo Sounder
MC	Measurement Criteria
MEE	Major Environment Event
MFO	Marine Fauna Observer
MMSI	Maritime Mobile Service Identity
MNES	Matters of National Environmental Significance
MOC	Management of Change
MODU	Mobile Offshore Drilling Unit
MPA	Marine Protected Areas

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MPRA	Marine Parks and Reserves Authority
ms-1	Metres per second
MSIN	Maritime Safety Information Notifications
NAC	Ngarluma Aboriginal Corporation
NCDSF	North Coast Demersal Scalefish Fishery
NHP	National Heritage Places
NIMS	Non-indigenous Marine Species
NLPG	National Light Pollution Guidelines
nm	Nautical mile (1,852 m) a unit of distance on the sea
NOPTA	National Offshore Petroleum Titles Administrator
NRC	North Rankin Complex
NTGAC	Nganhurra Thanardi Garrbu Aboriginal Corporation
NTM	Notice to Mariners
NWMR	North West Marine Region
NWP	North Western Province
NWS	North West Shelf
NWSP	North West Shelf Province
NWSTF	North West Slope Trawl Fishery
OCIMF	Oil Companies International Marine Forum
OCNS	Offshore Chemical Notification Scheme
OIW	Oil in Water
OPGGS	Offshore Petroleum and Greenhouse Gas
OPP	Offshore Project Proposal
OSREC	Oil Spill Response Skills Enhancement Course
OSRO	Oil Spill Response Organisation
OVID	Offshore Vessel Inspection Database
OVMSA	Offshore Vessel Management System Assessment
PAM	Passive Acoustic Monitoring
PGGAP	Petroleum and Greenhouse Gas Activity Program
PCPT	Piezocone Penetration Testing
PJ	Professional Judgement
PM	Project Manager
PO	Performance Objective
PPA	Pilbara Ports Authority
ppb	Parts Per Billion
ppm	Parts Per Million
PS	Performance Standard

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PSU	Practical Salinity Unit
PTS	Permanent Threshold Shift
Q1	First Quarter
Q4	Fourth Quarter
RBA	Risk Based Analysis
rms	Root Mean Square
ROV	Remotely Operated Vehicle
RRKAC	Robe River Kuruma Aboriginal Corporation
S&EM	Security & Emergency Management
SBP	Sub Bottom Profilers
SEEMP	Ship Energy Efficiency Management Plan
SEL	Sound Exposure Level
SIMAP	Spill Impact Mapping and Analysis Program
SIMOPS	Simultaneous Operations
SMP	Spill Monitoring Programme
SMPEP	Spill Monitoring Programme Execution Plan
SOLAS	Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plan
SPL	Sound Pressure Level
SSF	Specimen Shell Managed Fishery
SSS	Side Scan Sonars
SV	Societal Values
TAP	Threat Abatement Plan
TL	Transmission Loss
TTS	Temporary Threshold Shift
USBL	Ultra Short Baseline
WA	Western Australia
WAC	Wirrawandi Aboriginal Corporation
WAFIC	Western Australian Fishing Industry Council
WCC	Woodside Communication Centre
WCSS	Worst Credible Spill Scenario
WEL	Woodside Energy Ltd
WHP	World Heritage Places
WLS	Woodside Learning Services
WMS	Woodside Management System
Woodside	Woodside Energy Ltd
YAC	Yinggarda Aboriginal Corporation

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YMAC	Yamalji Marlpa Aboriginal Corporation
ZoC	Zone of Consequence

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## OBJECTIVE

Woodside recognises the intrinsic value of nature and the importance of conserving biodiversity and ecosystem services to support the sustainable development of our society. We are committed to doing our part. We understand and embrace our responsibility to undertake activities in an environmentally sustainable way.

## PRINCIPLES

Woodside commits to:

- Implementing a systematic approach to the management of the impacts and risks of our operating activities on an ongoing basis, including emissions and air quality, discharge and waste management, water management, biodiversity and protected areas.
- Applying the mitigation hierarchy principle (avoid, minimise, restore) and a continuous improvement approach to ensure we maintain compliance, improve resource use efficiency and reduce our environmental impacts.
- Embedding environmental and biodiversity management, and opportunities, in our business planning and decision making processes.
- Complying with relevant laws and regulations and applying responsible standards where laws do not exist.
- Not undertaking new exploration or development of hydrocarbons within the boundaries of natural sites on the UNESCO World Heritage List (as specified at 1 December 2022). Existing activity may continue if compatible with maintenance of the listed outstanding universal values.
- Not undertaking new exploration or development of hydrocarbons within IUCN Protected Areas (as specified at 1 December 2022) unless compatible with management plans in place for the area. Existing activity may continue if compatible with management plans in place for the area.
- Achieving net zero deforestation<sup>1</sup> associated with new projects that take a Final Investment Decision (FID) after 1 December 2022.
- Developing Biodiversity Action Plans for all new major projects (CAPEX >USD\$2 billion) that take a FID after 1 December 2022.
- Supporting positive biodiversity outcomes in regions and areas in which we operate.
- Setting targets and publicly reporting on our environmental and biodiversity performance.

## APPLICABILITY

Responsibility for the application of this Policy rests with all Woodside employees, contractors and joint venturers engaged in activities under Woodside operational control. Woodside managers are also responsible for promotion of this Policy in non-operated joint ventures.

This Policy will be reviewed regularly and updated as required.

*Approved by the Woodside Energy Group Ltd Board in December 2022.*

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<sup>1</sup> Definition of Forest: 'trees higher than 5 metres and a canopy cover of more than 10 percent on the land to be cleared'.



## APPENDIX A WOODSIDE ENVIRONMENT AND BIODIVERSITY POLICY

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## OBJECTIVE

Woodside recognises the intrinsic value of nature and the importance of conserving biodiversity and ecosystem services to support the sustainable development of our society. We are committed to doing our part. We understand and embrace our responsibility to undertake activities in an environmentally sustainable way.

## PRINCIPLES

Woodside commits to:

- Implementing a systematic approach to the management of the impacts and risks of our operating activities on an ongoing basis, including emissions and air quality, discharge and waste management, water management, biodiversity and protected areas.
- Applying the mitigation hierarchy principle (avoid, minimise, restore) and a continuous improvement approach to ensure we maintain compliance, improve resource use efficiency and reduce our environmental impacts.
- Embedding environmental and biodiversity management, and opportunities, in our business planning and decision making processes.
- Complying with relevant laws and regulations and applying responsible standards where laws do not exist.
- Not undertaking new exploration or development of hydrocarbons within the boundaries of natural sites on the UNESCO World Heritage List (as specified at 1 December 2022). Existing activity may continue if compatible with maintenance of the listed outstanding universal values.
- Not undertaking new exploration or development of hydrocarbons within IUCN Protected Areas (as specified at 1 December 2022) unless compatible with management plans in place for the area. Existing activity may continue if compatible with management plans in place for the area.
- Achieving net zero deforestation<sup>1</sup> associated with new projects that take a Final Investment Decision (FID) after 1 December 2022.
- Developing Biodiversity Action Plans for all new major projects (CAPEX >USD\$2 billion) that take a FID after 1 December 2022.
- Supporting positive biodiversity outcomes in regions and areas in which we operate.
- Setting targets and publicly reporting on our environmental and biodiversity performance.

## APPLICABILITY

Responsibility for the application of this Policy rests with all Woodside employees, contractors and joint venturers engaged in activities under Woodside operational control. Woodside managers are also responsible for promotion of this Policy in non-operated joint ventures.

This Policy will be reviewed regularly and updated as required.

*Approved by the Woodside Energy Group Ltd Board in December 2022.*

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<sup>1</sup> Definition of Forest: 'trees higher than 5 metres and a canopy cover of more than 10 percent on the land to be cleared'.

## APPENDIX B RELEVANT REQUIREMENTS

Commonwealth Legislation	Legislation Summary
<p><i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i></p>	<p>The Act seeks to “preserve and protect places, areas and objects of particular significance” to Aboriginal people. Under the Section 9 and 10 provisions of the Act, the Minister for the Environment may declare significant Aboriginal areas temporarily or permanently protected if they are considered under threat. Similar declarations regarding Aboriginal objects can be made under Section 12.</p> <p>Under Section 22 of the Act, the contravention of any of these declarations is an offence. Additionally, the discovery of any Aboriginal remains must be reported to the Minister under Section 20.</p> <p>Damage or interference with Aboriginal objects or places is not an offence under the ATSIHP Act except within Victoria under Section 21U.</p>
<p><i>Air Navigation Act 1920</i></p> <ul style="list-style-type: none"> <li>• <i>Air Navigation Regulations 1947</i></li> <li>• <i>Air Navigation (Aerodrome Flight Corridors) Regulations 1994</i></li> <li>• <i>Air Navigation (Aircraft Engine Emissions) Regulations 1995</i></li> <li>• <i>Air Navigation (Aircraft Noise) Regulations 1984</i></li> <li>• <i>Air Navigation (Fuel Spillage) Regulations 1999</i></li> </ul>	<p>This Act relates to the management of air navigation.</p>
<p><i>Australian Maritime Safety Authority Act 1990</i></p>	<p>This Act establishes a legal framework for the Australian Maritime Safety Authority (AMSA), which represents the Australian Government and international forums in the development, implementation and enforcement of international standards including those governing ship safety and marine environment protection. AMSA is responsible for administering the Marine Orders in Commonwealth waters.</p>
<p><i>Australian Radiation Protection and Nuclear Safety Act 1998</i></p>	<p>This Act relates to the protection of the health and safety of people, and the protection of the environment from the harmful effects of radiation.</p>
<p><i>Biosecurity Act 2015</i></p> <ul style="list-style-type: none"> <li>• <i>Quarantine Regulations 2000</i></li> <li>• <i>Biosecurity Regulation 2016</i></li> <li>• <i>Australian Ballast Water Management Requirements 2017</i></li> <li>• <i>Biosecurity Amendment (Biofouling Management) Regulations 2021</i></li> </ul>	<p>This Act provides the Commonwealth with powers to take measures of quarantine, and implement related programs as are necessary, to prevent the introduction of any plant, animal, organism or matter that could contain anything that could threaten Australia’s native flora and fauna or natural environment. The Commonwealth’s powers include powers of entry, seizure, detention and disposal.</p> <p>This Act includes mandatory controls on the use of seawater as ballast in ships and the declaration of sea vessels voyaging out of and into Commonwealth waters. The Regulations stipulate that all information regarding the voyage of the vessel and the ballast water is declared correctly to the quarantine officers.</p>

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	The Biofouling Management Regulations requires ships to report information about biofouling management and the voyage history of the ship in the past 12 months through a pre-arrival report.
<p><i>Environment Protection and Biodiversity Conservation Act 1999</i></p> <ul style="list-style-type: none"> <li><i>Environment Protection and Biodiversity Conservation Regulations 2000</i></li> </ul>	<p>This Act protects matters of national environmental significance (NES). It streamlines the national environmental assessment and approvals process, protects Australian biodiversity and integrates management of important natural and culturally significant places.</p> <p>Under this Act, actions that may be likely to have a significant impact on matters of NES must be referred to the Commonwealth Environment Minister.</p>
<p><i>Environment Protection (Sea Dumping) Act 1981</i></p> <ul style="list-style-type: none"> <li><i>Environment Protection (Sea Dumping) Regulations 1983</i></li> </ul>	This Act provides for the protection of the environment by regulating dumping matter into the sea, incineration of waste at sea and placement of artificial reefs.
<p><i>Industrial Chemicals (Notification and Assessment Act) 1989</i></p> <ul style="list-style-type: none"> <li><i>Industrial Chemicals (Notification and Assessment) Regulations 1990</i></li> </ul>	This Act creates a national register of industrial chemicals. The Act also provides for restrictions on the use of certain chemicals which could have harmful effects on the environment or health.
<p><i>National Environment Protection Measures (Implementation) Act 1998</i></p> <ul style="list-style-type: none"> <li><i>National Environment Protection Measures (Implementation) Regulations 1999</i></li> </ul>	<p>This Act and Regulations provide for the implementation of National Environment Protection Measures (NEPMs) to protect, restore and enhance the quality of the environment in Australia and ensure that the community has access to relevant and meaningful information about pollution.</p> <p>The National Environment Protection Council has made NEPMs relating to ambient air quality, the movement of controlled waste between states and territories, the national pollutant inventory, and used packaging materials.</p>
<p><i>National Greenhouse and Energy Reporting Act 2007</i></p> <ul style="list-style-type: none"> <li><i>National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015</i></li> </ul>	This Act and associated Rule establishes the legislative framework for the NGER scheme for reporting greenhouse gas emissions and energy consumption and production by corporations in Australia.
<p><i>Navigation Act 2012</i></p> <ul style="list-style-type: none"> <li><i>Marine order 12 – Construction – subdivision and stability, machinery and electrical installations</i></li> <li><i>Marine order 30 - Prevention of collisions</i></li> <li><i>Marine order 47 – Offshore Industry units</i></li> <li><i>Marine order 57 - Helicopter operations</i></li> <li><i>Marine order 91 - Marine pollution prevention—oil</i></li> <li><i>Marine order 93 - Marine pollution prevention—noxious liquid substances</i></li> <li><i>Marine order 94 - Marine pollution prevention—packaged harmful substances</i></li> <li><i>Marine order 96 - Marine pollution prevention—sewage</i></li> <li><i>Marine order 97 - Marine pollution prevention—air pollution</i></li> </ul>	<p>This Act regulates navigation and shipping including Safety of Life at Sea (SOLAS). The Act will apply to some activities of the MODU and project vessels.</p> <p>This Act is the primary legislation that regulates ship and seafarer safety, shipboard aspects of marine environment protection and pollution prevention.</p>

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<p><i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i></p> <ul style="list-style-type: none"> <li>• <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i></li> <li>• <i>Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011</i></li> <li>• <i>Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009</i></li> </ul>	<p>This Act is the principal Act governing offshore petroleum exploration and production in Commonwealth waters. Specific environmental, resource management and safety obligations are set out in the Regulations listed.</p>
<p><i>Ozone Protection and Synthetic Greenhouse Gas Management Act 1989</i></p> <ul style="list-style-type: none"> <li>• <i>Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995</i></li> </ul>	<p>This Act provides for measures to protect ozone in the atmosphere by controlling and ultimately reducing the manufacture, import and export of ozone depleting substances (ODS) and synthetic greenhouse gases, and replacing them with suitable alternatives. The Act will only apply to Woodside if it manufactures, imports or exports ozone depleting substances.</p>
<p><i>Protection of the Sea (Powers of Intervention) Act 1981</i></p>	<p>This Act authorises the Commonwealth to take measures for the purpose of protecting the sea from pollution by oil and other noxious substances discharged from ships and provides legal immunity for persons acting under an AMSA direction.</p>
<p><i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i></p> <p><i>Protection of the Sea (Prevention of Pollution from Ships) (Orders) Regulations 1994</i></p> <ul style="list-style-type: none"> <li>• <i>Marine order 91 - Marine pollution prevention—oil</i></li> <li>• <i>Marine order 93 - Marine pollution prevention—noxious liquid substances</i></li> <li>• <i>Marine order 94 - Marine pollution prevention—packaged harmful substances</i></li> <li>• <i>Marine order 95 - Marine pollution prevention—garbage</i></li> <li>• <i>Marine order 96 - Marine pollution prevention—sewage</i></li> </ul> <p><i>Maritime Legislation Amendment (Prevention of Air Pollution from Ships) Act 2007</i></p> <p>MARPOL Convention</p>	<p>This Act relates to the protection of the sea from pollution by oil and other harmful substances discharged from ships. Under this Act, discharge of oil or other harmful substances from ships into the sea is an offence. There is also a requirement to keep records of the ships dealing with such substances.</p> <p>The Act applies to all Australian ships, regardless of their location. It applies to foreign ships operating between 3 nautical miles (nm) off the coast out to the end of the Australian Exclusive Economic Zone (200 nm). It also applies within the 3 nm of the coast where the State/Northern Territory does not have complementary legislation.</p> <p>All the Marine Orders listed, except for Marine Order 95, are enacted under both the <i>Navigation Act 2012</i> and the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i>.</p> <p>This Act is an amendment to the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i>. This amended Act provides the protection of the sea from pollution by oil and other harmful substances discharged from ships.</p>
<p><i>Protection of the Sea (Harmful Antifouling Systems) Act 2006</i></p> <ul style="list-style-type: none"> <li>• <i>Marine order 98—(Marine pollution—anti-fouling systems)</i></li> </ul>	<p>This Act relates to the protection of the sea from the effects of harmful anti-fouling systems. It prohibits the application or reapplication of harmful anti-fouling compounds on Australian ships or foreign ships that are in an Australian shipping facility.</p>
<p><i>Recycling and Waste Reduction (Mandatory Product Stewardship—Mercury-added Products) Rules 2021</i></p> <p>(Minamata Convention on Mercury 2017)</p>	<p>This convention is an agreement to protect human and environmental health from the effects of releases of mercury and mercury-containing compounds to the environment. The convention is not yet ratified by Australia, and hence is not currently implemented in Commonwealth law. Australia</p>

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	has signed the convention and is currently undertaking an assessment process prior to ratification.
<p>Underwater Cultural Heritage Act 2018</p> <ul style="list-style-type: none"> <li>• Underwater Cultural Heritage Guidance for Offshore Developments</li> <li>• DRAFT Guidelines to Protect Underwater Cultural Heritage</li> </ul>	<p>This Act prescribes penalties for damage to protected underwater cultural heritage without a permit under Section 30 or in contravention of a permit in Section 28. Protected Underwater cultural heritage is prescribed in Section 16 to automatically include the remains and associated artefacts of any vessel or aircraft that has been in Australian waters for 75 years, whether known or unknown. This protection is also extended to underwater cultural heritage in Commonwealth waters specified by the Environment Minister under Section 17. Without a declaration under this section, Aboriginal underwater cultural heritage is not protected under the UCH Act.</p>

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## APPENDIX C EPBC ACT PROTECTED MATTERS SEARCH REPORTS

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Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# 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. Please see the caveat for interpretation of information provided here.

Report created: 15-Dec-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



# Summary

## Matters of National Environment 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 [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	2
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	24
<a href="#">Listed Migratory Species:</a>	38

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) 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.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	70
<a href="#">Whales and Other Cetaceans:</a>	28
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	1
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	1

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	44
<a href="#">Key Ecological Features (Marine):</a>	2
<a href="#">Biologically Important Areas:</a>	8
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# 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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

### Feature Name

Commonwealth Marine Areas (EPBC Act)

Commonwealth Marine Areas (EPBC Act)

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

### Scientific Name

### Threatened Category

### Presence Text

#### BIRD

#### [Calidris canutus](#)

Red Knot, Knot [855]

Endangered

Species or species habitat may occur within area

#### [Calidris ferruginea](#)

Curlew Sandpiper [856]

Critically Endangered

Species or species habitat may occur within area

#### [Macronectes giganteus](#)

Southern Giant-Petrel, Southern Giant Petrel [1060]

Endangered

Species or species habitat may occur within area

#### [Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered

Species or species habitat may occur within area

#### [Phaethon lepturus fulvus](#)

Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]

Endangered

Species or species habitat may occur within area

#### [Sternula nereis nereis](#)

Australian Fairy Tern [82950]

Vulnerable

Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
<b>FISH</b>		
<a href="#">Thunnus maccoyii</a> Southern Bluefin Tuna [69402]	Conservation Dependent	Breeding known to occur within area
<b>MAMMAL</b>		
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<b>REPTILE</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<b>SHARK</b>		

Scientific Name	Threatened Category	Presence Text
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat known to occur within area

Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat may occur within area
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Isurus oxyrinchus</a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
<a href="#">Isurus paucus</a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat known to occur within area
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<a href="#">Orcaella heinsohni</a> Australian Snubfin Dolphin [81322]		Species or species habitat may occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sousa sahalensis as Sousa chinensis</a> Australian Humpback Dolphin [87942]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species	[ Resource Information ]	
Scientific Name	Threatened Category	Presence Text
Bird		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat may occur within area
<a href="#">Phaethon lepturus fulvus</a> Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Acentronura larsonae</a> Helen's Pygmy Pipehorse [66186]		Species or species habitat may occur within area
<a href="#">Bulbonaricus brauni</a> Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys latispinosus</a> Muiron Island Pipefish [66196]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Corythoichthys flavofasciatus</a> Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
<a href="#">Cosmocampus banneri</a> Roughridge Pipefish [66206]		Species or species habitat may occur within area
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
<a href="#">Doryrhamphus excisus</a> Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Doryrhamphus multiannulatus</a> Many-banded Pipefish [66717]		Species or species habitat may occur within area
<a href="#">Doryrhamphus negrosensis</a> Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
<a href="#">Festucalex scalaris</a> Ladder Pipefish [66216]		Species or species habitat may occur within area
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus nitidus</a> Glittering Pipefish [66224]		Species or species habitat may occur within area
<a href="#">Halicampus spinostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus spinosissimus</a> Hedgehog Seahorse [66239]		Species or species habitat may occur within area
<a href="#">Hippocampus trimaculatus</a> Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Phoxocampus belcheri</a> Black Rock Pipefish [66719]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Reptile</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Sea Snake, Dubois' Seasnake, Reef Shallows Sea Snake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Aipysurus laevis</a> Olive Sea Snake, Olive-brown Sea Snake [1120]		Species or species habitat may occur within area
<a href="#">Aipysurus mosaicus as Aipysurus eydouxii</a> Mosaic Sea Snake [87261]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Sea Snake, Mjoberg's Sea Snake [1121]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Ephalophis greyi</a> Mangrove Sea Snake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Hydrelaps darwiniensis</a> Port Darwin Sea Snake, Black-ringed Mangrove Sea Snake [1100]		Species or species habitat may occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Sea Snake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Sea Snake, Bar-bellied Sea Snake [1104]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Hydrophis kingii as Disteira kingii</a> Spectacled Sea Snake [93511]		Species or species habitat may occur within area
<a href="#">Hydrophis macdowelli as Hydrophis mcdowelli</a> MacDowell's Sea Snake, Small-headed Sea Snake, [75601]		Species or species habitat may occur within area
<a href="#">Hydrophis major as Disteira major</a> Olive-headed Sea Snake [93512]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Sea Snake, Ornate Reef Sea Snake [1111]		Species or species habitat may occur within area
<a href="#">Hydrophis peronii as Acalyptophis peronii</a> Horned Sea Snake [93509]		Species or species habitat may occur within area
<a href="#">Hydrophis platurus as Pelamis platurus</a> Yellow-bellied Sea Snake [93517]		Species or species habitat may occur within area
<a href="#">Hydrophis stokesii as Astrotia stokesii</a> Stokes' Sea Snake [93510]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area

## Whales and Other Cetaceans [ Resource Information ]

Current Scientific Name	Status	Type of Presence
Mammal		
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Feresa attenuata</a> Pygmy Killer Whale [61]		Species or species habitat may occur within area
<a href="#">Globicephala macrorhynchus</a> Short-finned Pilot Whale [62]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Kogia breviceps</a> Pygmy Sperm Whale [57]		Species or species habitat may occur within area
<a href="#">Kogia sima</a> Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
<a href="#">Lagenodelphis hosei</a> Fraser's Dolphin, Sarawak Dolphin [41]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area



Current Scientific Name	Status	Type of Presence
<a href="#">Mesoplodon densirostris</a> Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
<a href="#">Orcaella heinsohni</a> Australian Snubfin Dolphin [81322]		Species or species habitat may occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Peponocephala electra</a> Melon-headed Whale [47]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pseudorca crassidens</a> False Killer Whale [48]		Species or species habitat likely to occur within area
<a href="#">Sousa sahalensis</a> Australian Humpback Dolphin [87942]		Species or species habitat may occur within area
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Stenella coeruleoalba</a> Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
<a href="#">Stenella longirostris</a> Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
<a href="#">Steno bredanensis</a> Rough-toothed Dolphin [30]		Species or species habitat may occur within area



Current Scientific Name	Status	Type of Presence
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area
<a href="#">Ziphius cavirostris</a> Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[ Resource Information ]
Park Name	Zone & IUCN Categories
Montebello	Multiple Use Zone (IUCN VI)

Habitat Critical to the Survival of Marine Turtles		
Scientific Name	Behaviour	Presence
Aug - Sep		
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Nesting	Known to occur

## Extra Information

EPBC Act Referrals				[ Resource Information ]
Title of referral	Reference	Referral Outcome	Assessment Status	
<a href="#">Browse to North West Shelf Development, Indian Ocean, WA</a>	2018/8319		Approval	
<b>Controlled action</b>				
<a href="#">Construct and operate LNG &amp; domestic gas plant including onshore and offshore facilities - Wheatston</a>	2008/4469	Controlled Action	Post-Approval	
<a href="#">Echo-Yodel Production Wells</a>	2000/11	Controlled Action	Post-Approval	
<a href="#">Equus Gas Fields Development Project, Carnarvon Basin</a>	2012/6301	Controlled Action	Completed	

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Controlled action</b>			
<a href="#">Gorgon Gas Development 4th Train Proposal</a>	2011/5942	Controlled Action	Post-Approval
<a href="#">Pluto Gas Project</a>	2005/2258	Controlled Action	Completed
<a href="#">Pluto Gas Project Including Site B</a>	2006/2968	Controlled Action	Post-Approval
<b>Not controlled action</b>			
<a href="#">'Goodwyn A' Low Pressure Train Project</a>	2003/914	Not Controlled Action	Completed
<a href="#">Echo A Development WA-23-L, WA-24-L</a>	2005/2042	Not Controlled Action	Completed
<a href="#">Exploration of appraisal wells</a>	2006/3065	Not Controlled Action	Completed
<a href="#">Maia-Gaea Exploration wells</a>	2000/17	Not Controlled Action	Completed
<a href="#">North Rankin B gas compression facility</a>	2005/2500	Not Controlled Action	Completed
<a href="#">Pipeline System Modifications Project</a>	2000/3	Not Controlled Action	Completed
<a href="#">Project Highclere Geophysical Survey</a>	2021/9023	Not Controlled Action	Completed
<a href="#">Searipple gas and condensate field development</a>	2000/89	Not Controlled Action	Completed
<a href="#">sub-sea tieback of Perseus field wells</a>	2004/1326	Not Controlled Action	Completed
<a href="#">Telstra North Rankin Spur Fibre Optic Cable</a>	2016/7836	Not Controlled Action	Completed
<a href="#">To construct and operate an offshore submarine fibre optic cable, WA</a>	2014/7373	Not Controlled Action	Completed
<a href="#">Western Flank Gas Development</a>	2005/2464	Not Controlled Action	Completed
<a href="#">Wheatstone 3D seismic survey, 70km north of Barrow Island</a>	2004/1761	Not Controlled Action	Completed
<b>Not controlled action (particular manner)</b>			
<a href="#">'Tourmaline' 2D marine seismic survey, permit areas WA-323-P, WA-330-P and WA-32</a>	2005/2282	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">"Leanne" offshore 3D seismic exploration, WA-356-P</a>	2005/1938	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Marine Seismic Survey in WA 457-P &amp; WA 458-P, North West Shelf, offshore WA</a>	2013/6862	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Aperio 3D Marine Seismic Survey, WA</a>	2012/6648	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Balnaves Condensate Field Development</a>	2011/6188	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cable Seismic Exploration Permit areas WA-323-P and WA-330-P</a>	2008/4227	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">CGGVERITAS 2010 2D Seismic Survey</a>	2010/5714	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cue Seismic Survey within WA-359-P, WA-361-P and WA-360-P</a>	2007/3647	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">DAVROS MC 3D marine seismic survey northwaet of Dampier, WA</a>	2013/7092	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Northwest Shelf 2D Seismic Survey</a>	2007/3260	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Demeter 3D Seismic Survey, off Dampier, WA</a>	2002/900	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Foxhound 3D Non-Exclusive Marine Seismic Survey</a>	2009/4703	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Greater Western Flank Phase 1 gas Development</a>	2011/5980	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
		Manner)	
<a href="#">Harmony 3D Marine Seismic Survey</a>	2012/6699	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Julimar Brunello Gas Development Project</a>	2011/5936	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Moosehead 2D seismic survey within permit WA-192-P</a>	2005/2167	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Santos Winchester three dimensional seismic survey - WA-323-P &amp; WA-330-P</a>	2011/6107	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Stag 4D &amp; Reindeer MAZ Marine Seismic Surveys, WA</a>	2013/7080	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Tidepole Maz 3D Seismic Survey Campaign</a>	2007/3706	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">West Panaeus 3D seismic survey</a>	2006/3141	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Westralia SPAN Marine Seismic Survey, WA &amp; NT</a>	2012/6463	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone 3D MAZ Marine Seismic Survey</a>	2011/6058	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2008/4134	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2007/3941	Not Controlled Action (Particular Manner)	Post-Approval

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
<a href="#">Ancient coastline at 125 m depth contour</a>	North-west
<a href="#">Continental Slope Demersal Fish Communities</a>	North-west

### Biologically Important Areas

Scientific Name	Behaviour	Presence
<b>Marine Turtles</b>		
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Internesting buffer	Known to occur
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Internesting buffer	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Internesting buffer	Known to occur
<b>Seabirds</b>		
<a href="#">Ardena pacifica</a> Wedge-tailed Shearwater [84292]	Breeding	Known to occur
<b>Sharks</b>		
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Foraging	Known to occur
<b>Whales</b>		
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Distribution	Known to occur
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Migration	Known to occur
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Migration (north and south)	Known to occur

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.



# 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.

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Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# 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. Please see the caveat for interpretation of information provided here.

Report created: 15-Dec-2023

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# Summary

## Matters of National Environment 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 [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	1
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	19
<a href="#">Listed Migratory Species:</a>	33

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) 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.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	56
<a href="#">Whales and Other Cetaceans:</a>	23
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	31
<a href="#">Key Ecological Features (Marine):</a>	1
<a href="#">Biologically Important Areas:</a>	5
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# 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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

### Feature Name

Commonwealth Marine Areas (EPBC Act)

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
Number is the current name ID.

### Scientific Name

### Threatened Category

### Presence Text

#### BIRD

#### [Calidris canutus](#)

Red Knot, Knot [855]

Endangered

Species or species habitat may occur within area

#### [Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered

Species or species habitat may occur within area

#### [Phaethon lepturus fulvus](#)

Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]

Endangered

Species or species habitat may occur within area

#### [Sternula nereis nereis](#)

Australian Fairy Tern [82950]

Vulnerable

Species or species habitat may occur within area

#### FISH

#### [Thunnus maccoyii](#)

Southern Bluefin Tuna [69402]

Conservation Dependent

Breeding known to occur within area

#### MAMMAL

#### [Balaenoptera borealis](#)

Sei Whale [34]

Vulnerable

Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<b>REPTILE</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<b>SHARK</b>		
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat may occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area

Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area

**Migratory Marine Species**

<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat may occur within area
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Isurus oxyrinchus</a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
<a href="#">Isurus paucus</a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat likely to occur within area
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
Bird		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area
<a href="#">Phaethon lepturus fulvus</a> Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Corythoichthys flavofasciatus</a> Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
<a href="#">Cosmocampus banneri</a> Roughridge Pipefish [66206]		Species or species habitat may occur within area
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Doryrhamphus excisus</a> Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus spinostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus spinosissimus</a> Hedgehog Seahorse [66239]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Reptile</b>		
<a href="#">Aipysurus duboisii</a> Dubois' Sea Snake, Dubois' Seasnake, Reef Shallows Sea Snake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus laevis</a> Olive Sea Snake, Olive-brown Sea Snake [1120]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Aipysurus mosaicus</a> as <a href="#">Aipysurus eydouxii</a> Mosaic Sea Snake [87261]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Sea Snake, Mjoberg's Sea Snake [1121]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Ephalophis greyi</a> Mangrove Sea Snake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Sea Snake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Sea Snake, Bar-bellied Sea Snake [1104]		Species or species habitat may occur within area
<a href="#">Hydrophis kingii</a> as <a href="#">Disteira kingii</a> Spectacled Sea Snake [93511]		Species or species habitat may occur within area
<a href="#">Hydrophis macdowelli</a> as <a href="#">Hydrophis mcdowelli</a> MacDowell's Sea Snake, Small-headed Sea Snake, [75601]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Hydrophis major as Disteira major</a> Olive-headed Sea Snake [93512]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Sea Snake, Ornate Reef Sea Snake [1111]		Species or species habitat may occur within area
<a href="#">Hydrophis peronii as Acalyptophis peronii</a> Horned Sea Snake [93509]		Species or species habitat may occur within area
<a href="#">Hydrophis platurus as Pelamis platurus</a> Yellow-bellied Sea Snake [93517]		Species or species habitat may occur within area
<a href="#">Hydrophis stokesii as Astrotia stokesii</a> Stokes' Sea Snake [93510]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area

## Whales and Other Cetaceans [ [Resource Information](#) ]

Current Scientific Name	Status	Type of Presence
Mammal		
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Feresa attenuata</a> Pygmy Killer Whale [61]		Species or species habitat may occur within area
<a href="#">Globicephala macrorhynchus</a> Short-finned Pilot Whale [62]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Kogia breviceps</a> Pygmy Sperm Whale [57]		Species or species habitat may occur within area
<a href="#">Kogia sima</a> Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Peponocephala electra</a> Melon-headed Whale [47]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pseudorca crassidens</a> False Killer Whale [48]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Stenella coeruleoalba</a> Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
<a href="#">Stenella longirostris</a> Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
<a href="#">Steno bredanensis</a> Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat may occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area
<a href="#">Ziphius cavirostris</a> Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

## Extra Information

EPBC Act Referrals			[ Resource Information ]
Title of referral	Reference	Referral Outcome	Assessment Status
<a href="#">Browse to North West Shelf Development, Indian Ocean, WA</a>	2018/8319		Approval
<a href="#">Project Highclere Cable Lay and Operation</a>	2022/09203		Completed
Controlled action			



Title of referral	Reference	Referral Outcome	Assessment Status
<b>Controlled action</b>			
<a href="#">Development of Browse Basin Gas Fields (Upstream)</a>	2008/4111	Controlled Action	Completed
<a href="#">Equus Gas Fields Development Project, Carnarvon Basin</a>	2012/6301	Controlled Action	Completed
<b>Not controlled action</b>			
<a href="#">'Goodwyn A' Low Pressure Train Project</a>	2003/914	Not Controlled Action	Completed
<a href="#">Development of Mutineer and Exeter petroleum fields for oil production, Permit</a>	2003/1033	Not Controlled Action	Completed
<a href="#">Maia-Gaea Exploration wells</a>	2000/17	Not Controlled Action	Completed
<a href="#">North Rankin B gas compression facility</a>	2005/2500	Not Controlled Action	Completed
<a href="#">Pipeline System Modifications Project</a>	2000/3	Not Controlled Action	Completed
<a href="#">Project Highclere Geophysical Survey</a>	2021/9023	Not Controlled Action	Completed
<a href="#">Searipple gas and condensate field development</a>	2000/89	Not Controlled Action	Completed
<a href="#">sub-sea tieback of Perseus field wells</a>	2004/1326	Not Controlled Action	Completed
<a href="#">Telstra North Rankin Spur Fibre Optic Cable</a>	2016/7836	Not Controlled Action	Completed
<a href="#">Western Flank Gas Development</a>	2005/2464	Not Controlled Action	Completed
<b>Not controlled action (particular manner)</b>			
<a href="#">'Tourmaline' 2D marine seismic survey, permit areas WA-323-P, WA-330-P and WA-32</a>	2005/2282	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Marine Seismic Survey in WA 457-P &amp; WA 458-P, North West Shelf, offshore WA</a>	2013/6862	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D seismic survey</a>	2006/2781	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cue Seismic Survey within WA-359-P, WA-361-P and WA-360-P</a>	2007/3647	Not Controlled Action (Particular Manner)	Post-Approval



Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">DAVROS MC 3D marine seismic survey northwaet of Dampier, WA</a>	2013/7092	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Northwest Shelf 2D Seismic Survey</a>	2007/3260	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Demeter 3D Seismic Survey, off Dampier, WA</a>	2002/900	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Foxhound 3D Non-Exclusive Marine Seismic Survey</a>	2009/4703	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Greater Western Flank Phase 1 gas Development</a>	2011/5980	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2008/4630	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2009/4801	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Rose 3D Seismic Program</a>	2008/4239	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Santos Winchester three dimensional seismic survey - WA-323-P &amp; WA-330-P</a>	2011/6107	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Tidepole Maz 3D Seismic Survey Campaign</a>	2007/3706	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">West Panaeus 3D seismic survey</a>	2006/3141	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Westralia SPAN Marine Seismic Survey, WA &amp; NT</a>	2012/6463	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	

Referral decision			
<a href="#">3D Seismic Survey</a>	2008/4219	Referral Decision	Completed

## Key Ecological Features [\[ Resource Information \]](#)

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
<a href="#">Ancient coastline at 125 m depth contour</a>	North-west

## Biologically Important Areas

Scientific Name	Behaviour	Presence
Marine Turtles		
<a href="#">Natator depressus</a>		
Flatback Turtle [59257]	Internesting buffer	Known to occur

## Seabirds

<a href="#">Ardena pacifica</a>		
Wedge-tailed Shearwater [84292]	Breeding	Known to occur

## Sharks

<a href="#">Rhincodon typus</a>		
Whale Shark [66680]	Foraging	Known to occur

## Whales

<a href="#">Balaenoptera musculus brevicauda</a>		
Pygmy Blue Whale [81317]	Distribution	Known to occur
<a href="#">Balaenoptera musculus brevicauda</a>		
Pygmy Blue Whale [81317]	Migration	Known to occur

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# 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.

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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. Please see the caveat for interpretation of information provided here.

Report created: 15-Dec-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment 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 [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	1
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	21
<a href="#">Listed Migratory Species:</a>	34

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) 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.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	58
<a href="#">Whales and Other Cetaceans:</a>	23
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	1

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	19
<a href="#">Key Ecological Features (Marine):</a>	2
<a href="#">Biologically Important Areas:</a>	5
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# 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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

### Feature Name

Commonwealth Marine Areas (EPBC Act)

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
Number is the current name ID.

### Scientific Name

### Threatened Category

### Presence Text

#### BIRD

#### [Calidris canutus](#)

Red Knot, Knot [855]

Endangered

Species or species habitat may occur within area

#### [Calidris ferruginea](#)

Curlew Sandpiper [856]

Critically Endangered

Species or species habitat may occur within area

#### [Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered

Species or species habitat may occur within area

#### [Sternula nereis nereis](#)

Australian Fairy Tern [82950]

Vulnerable

Species or species habitat may occur within area

#### FISH

#### [Thunnus maccoyii](#)

Southern Bluefin Tuna [69402]

Conservation Dependent

Breeding known to occur within area

#### MAMMAL

#### [Balaenoptera borealis](#)

Sei Whale [34]

Vulnerable

Species or species habitat likely to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<b>REPTILE</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<b>SHARK</b>		
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area

### Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Isurus oxyrinchus</a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Isurus paucus</a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat likely to occur within area
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat may occur within area

## Migratory Wetlands Species

Scientific Name	Threatened Category	Presence Text
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species	[ Resource Information ]	
Scientific Name	Threatened Category	Presence Text
Bird		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area
<b>Fish</b>		
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Corythoichthys flavofasciatus</a> Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
<a href="#">Cosmocampus banneri</a> Roughridge Pipefish [66206]		Species or species habitat may occur within area
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
<a href="#">Doryrhamphus excisus</a> Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus spinirostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus spinosissimus</a> Hedgehog Seahorse [66239]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Reptile</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Sea Snake, Dubois' Seasnake, Reef Shallows Sea Snake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus laevis</a> Olive Sea Snake, Olive-brown Sea Snake [1120]		Species or species habitat may occur within area
<a href="#">Aipysurus mosaicus as Aipysurus eydouxii</a> Mosaic Sea Snake [87261]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Sea Snake, Mjoberg's Sea Snake [1121]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Ephalophis greyi</a> Mangrove Sea Snake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Sea Snake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Sea Snake, Bar-bellied Sea Snake [1104]		Species or species habitat may occur within area
<a href="#">Hydrophis kingii as Disteira kingii</a> Spectacled Sea Snake [93511]		Species or species habitat may occur within area
<a href="#">Hydrophis macdowellii as Hydrophis mcdowellii</a> MacDowell's Sea Snake, Small-headed Sea Snake, [75601]		Species or species habitat may occur within area
<a href="#">Hydrophis major as Disteira major</a> Olive-headed Sea Snake [93512]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Sea Snake, Ornate Reef Sea Snake [1111]		Species or species habitat may occur within area
<a href="#">Hydrophis peronii as Acalyptophis peronii</a> Horned Sea Snake [93509]		Species or species habitat may occur within area
<a href="#">Hydrophis platurus as Pelamis platurus</a> Yellow-bellied Sea Snake [93517]		Species or species habitat may occur within area
<a href="#">Hydrophis stokesii as Astrotia stokesii</a> Stokes' Sea Snake [93510]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area

## Whales and Other Cetaceans [ [Resource Information](#) ]

Current Scientific Name	Status	Type of Presence
<b>Mammal</b>		
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Feresa attenuata</a> Pygmy Killer Whale [61]		Species or species habitat may occur within area
<a href="#">Globicephala macrorhynchus</a> Short-finned Pilot Whale [62]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Kogia breviceps</a> Pygmy Sperm Whale [57]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Kogia sima</a> Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Peponocephala electra</a> Melon-headed Whale [47]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pseudorca crassidens</a> False Killer Whale [48]		Species or species habitat likely to occur within area
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Stenella coeruleoalba</a> Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
<a href="#">Stenella longirostris</a> Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
<a href="#">Steno bredanensis</a> Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat may occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area
<a href="#">Ziphius cavirostris</a> Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

### Habitat Critical to the Survival of Marine Turtles

Scientific Name	Behaviour	Presence
Aug - Sep <a href="#">Natator depressus</a> Flatback Turtle [59257]	Nesting	Known to occur

### Extra Information

#### EPBC Act Referrals [\[ Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status
<a href="#">Browse to North West Shelf Development, Indian Ocean, WA</a>	2018/8319		Approval
<a href="#">Project Highclere Cable Lay and Operation</a>	2022/09203		Completed

#### Controlled action

<a href="#">Development of Angel gas and condensate field, North West Shelf</a>	2004/1805	Controlled Action	Post-Approval
<a href="#">Development of Browse Basin Gas Fields (Upstream)</a>	2008/4111	Controlled Action	Completed

#### Not controlled action

<a href="#">Development of Mutineer and Exeter petroleum fields for oil production, Permit</a>	2003/1033	Not Controlled Action	Completed
<a href="#">Maia-Gaea Exploration wells</a>	2000/17	Not Controlled Action	Completed
<a href="#">Project Highclere Geophysical Survey</a>	2021/9023	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">3D Marine Seismic Survey in WA 457-P &amp; WA 458-P, North West Shelf, offshore WA</a>	2013/6862	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D seismic survey</a>	2006/2781	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cue Seismic Survey within WA-359-P, WA-361-P and WA-360-P</a>	2007/3647	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">DAVROS MC 3D marine seismic survey northwaet of Dampier, WA</a>	2013/7092	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Decommissioning of the Legendre facilities</a>	2010/5681	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Northwest Shelf 2D Seismic Survey</a>	2007/3260	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Demeter 3D Seismic Survey, off Dampier, WA</a>	2002/900	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Fletcher-Finucane Development, WA26-L and WA191-P</a>	2011/6123	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2008/4630	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2009/4801	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Offshore Drilling Campaign</a>	2011/5830	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Westralia SPAN Marine Seismic Survey, WA &amp; NT</a>	2012/6463	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Manner)			

## Key Ecological Features [ [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
<a href="#">Ancient coastline at 125 m depth contour</a>	North-west
<a href="#">Glomar Shoals</a>	North-west

## Biologically Important Areas

Scientific Name	Behaviour	Presence
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### Marine Turtles

[Natator depressus](#)

Flatback Turtle [59257]	Internesting buffer	Known to occur
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### Seabirds

[Ardena pacifica](#)

Wedge-tailed Shearwater [84292]	Breeding	Known to occur
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### Sharks

[Rhincodon typus](#)

Whale Shark [66680]	Foraging	Known to occur
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### Whales

[Balaenoptera musculus brevicauda](#)

Pygmy Blue Whale [81317]	Distribution	Known to occur
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[Megaptera novaeangliae](#)

Humpback Whale [38]	Migration (north and south)	Known to occur
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# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.



# 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.

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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. Please see the caveat for interpretation of information provided here.

Report created: 15-May-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment 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 [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	1
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	23
<a href="#">Listed Migratory Species:</a>	37

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) 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.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	65
<a href="#">Whales and Other Cetaceans:</a>	28
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	1
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	1

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	31
<a href="#">Key Ecological Features (Marine):</a>	2
<a href="#">Biologically Important Areas:</a>	8
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# 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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

### Feature Name

EEZ and Territorial Sea

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
Number is the current name ID.

### Scientific Name

### Threatened Category

### Presence Text

#### BIRD

#### [Calidris canutus](#)

Red Knot, Knot [855]

Endangered

Species or species habitat may occur within area

#### [Calidris ferruginea](#)

Curlew Sandpiper [856]

Critically Endangered

Species or species habitat may occur within area

#### [Macronectes giganteus](#)

Southern Giant-Petrel, Southern Giant Petrel [1060]

Endangered

Species or species habitat may occur within area

#### [Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered

Species or species habitat may occur within area

#### [Phaethon lepturus fulvus](#)

Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]

Endangered

Species or species habitat may occur within area

#### [Sternula nereis nereis](#)

Australian Fairy Tern [82950]

Vulnerable

Foraging, feeding or related behaviour likely to occur within area

#### FISH

Scientific Name	Threatened Category	Presence Text
<a href="#">Thunnus maccoyii</a> Southern Bluefin Tuna [69402]	Conservation Dependent	Breeding known to occur within area
<b>MAMMAL</b>		
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<b>REPTILE</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<b>SHARK</b>		
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat known to occur within area

## Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat may occur within area
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#"><i>Eretmochelys imbricata</i></a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#"><i>Isurus oxyrinchus</i></a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
<a href="#"><i>Isurus paucus</i></a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#"><i>Megaptera novaeangliae</i></a> Humpback Whale [38]		Breeding known to occur within area
<a href="#"><i>Mobula alfredi</i> as <i>Manta alfredi</i></a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat likely to occur within area
<a href="#"><i>Mobula birostris</i> as <i>Manta birostris</i></a> Giant Manta Ray [90034]		Species or species habitat likely to occur within area
<a href="#"><i>Natator depressus</i></a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area
<a href="#"><i>Orcaella heinsohni</i></a> Australian Snubfin Dolphin [81322]		Species or species habitat may occur within area
<a href="#"><i>Orcinus orca</i></a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#"><i>Physeter macrocephalus</i></a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#"><i>Pristis clavata</i></a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sousa sahalensis as Sousa chinensis</a> Australian Humpback Dolphin [87942]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
Bird		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat may occur within area
<a href="#">Phaethon lepturus fulvus</a> Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Acentronura larsonae</a> Helen's Pygmy Pipehorse [66186]		Species or species habitat may occur within area
<a href="#">Bulbonaricus brauni</a> Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys latispinosus</a> Muiron Island Pipefish [66196]		Species or species habitat may occur within area
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Corythoichthys flavofasciatus</a> Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
<a href="#">Cosmocampus banneri</a> Roughridge Pipefish [66206]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
<a href="#">Doryrhamphus excisus</a> Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Doryrhamphus multiannulatus</a> Many-banded Pipefish [66717]		Species or species habitat may occur within area
<a href="#">Doryrhamphus negrosensis</a> Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
<a href="#">Festucalex scalaris</a> Ladder Pipefish [66216]		Species or species habitat may occur within area
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus nitidus</a> Glittering Pipefish [66224]		Species or species habitat may occur within area
<a href="#">Halicampus spinirostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Haliichthys taeniophorus</a> Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus spinosissimus</a> Hedgehog Seahorse [66239]		Species or species habitat may occur within area
<a href="#">Hippocampus trimaculatus</a> Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Phoxocampus belcheri</a> Black Rock Pipefish [66719]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Reptile</b>		
<a href="#">Acalyptophis peronii</a> Horned Seasnake [1114]		Species or species habitat may occur within area
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Seasnake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus eydouxii</a> Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
<a href="#">Aipysurus laevis</a> Olive Seasnake [1120]		Species or species habitat may occur within area
<a href="#">Astrotia stokesii</a> Stokes' Seasnake [1122]		Species or species habitat may occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Chitulia ornata as Hydrophis ornatus</a> Spotted Seasnake, Ornate Reef Seasnake [87377]		Species or species habitat may occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Disteira kingii</a> Spectacled Seasnake [1123]		Species or species habitat may occur within area
<a href="#">Disteira major</a> Olive-headed Seasnake [1124]		Species or species habitat may occur within area
<a href="#">Ephalophis greyi</a> North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Hydrophis elegans</a> Elegant Seasnake [1104]		Species or species habitat may occur within area
<a href="#">Leioselasma czeblukovi as Hydrophis czeblukovi</a> Fine-spined Seasnake, Geometrical Seasnake [87374]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Congregation or aggregation known to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Pelamis platurus</a> Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area

## Whales and Other Cetaceans [ [Resource Information](#) ]

Current Scientific Name	Status	Type of Presence
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### Mammal

<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
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<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Species or species habitat likely to occur within area
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<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
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<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
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<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Species or species habitat likely to occur within area
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<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
--	--	--

<a href="#">Feresa attenuata</a> Pygmy Killer Whale [61]		Species or species habitat may occur within area
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<a href="#">Globicephala macrorhynchus</a> Short-finned Pilot Whale [62]		Species or species habitat may occur within area
---	--	--

<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
--	--	--

Current Scientific Name	Status	Type of Presence
<a href="#">Kogia breviceps</a> Pygmy Sperm Whale [57]		Species or species habitat may occur within area
<a href="#">Kogia sima as Kogia simus</a> Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
<a href="#">Lagenodelphis hosei</a> Fraser's Dolphin, Sarawak Dolphin [41]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Mesoplodon densirostris</a> Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
<a href="#">Orcaella heinsohni as Orcaella brevirostris</a> Australian Snubfin Dolphin [81322]		Species or species habitat may occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Peponocephala electra</a> Melon-headed Whale [47]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pseudorca crassidens</a> False Killer Whale [48]		Species or species habitat likely to occur within area
<a href="#">Sousa sahalensis as Sousa chinensis</a> Australian Humpback Dolphin [87942]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Stenella coeruleoalba</a> Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
<a href="#">Stenella longirostris</a> Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
<a href="#">Steno bredanensis</a> Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area
<a href="#">Ziphius cavirostris</a> Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[ Resource Information ]
Park Name	Zone & IUCN Categories
Montebello	Multiple Use Zone (IUCN VI)

Habitat Critical to the Survival of Marine Turtles		
Scientific Name	Behaviour	Presence
Aug - Sep		
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Nesting	Known to occur

## Extra Information

EPBC Act Referrals			[ Resource Information ]	
Title of referral	Reference	Referral Outcome	Assessment Status	
<b>Controlled action</b>				
<a href="#">Construct and operate LNG &amp; domestic gas plant including onshore and offshore facilities - Wheatston</a>	2008/4469	Controlled Action	Post-Approval	
<a href="#">Equus Gas Fields Development Project, Carnarvon Basin</a>	2012/6301	Controlled Action	Completed	
<a href="#">Gorgon Gas Development</a>	2003/1294	Controlled Action	Post-Approval	
<a href="#">Gorgon Gas Development 4th Train Proposal</a>	2011/5942	Controlled Action	Post-Approval	
<a href="#">Pluto Gas Project</a>	2005/2258	Controlled Action	Completed	
<a href="#">Pluto Gas Project Including Site B</a>	2006/2968	Controlled Action	Post-Approval	
<b>Not controlled action</b>				
<a href="#">Exploration of appraisal wells</a>	2006/3065	Not Controlled Action	Completed	
<a href="#">Project Highclere Geophysical Survey</a>	2021/9023	Not Controlled Action	Completed	
<a href="#">To construct and operate an offshore submarine fibre optic cable, WA</a>	2014/7373	Not Controlled Action	Completed	
<a href="#">Wheatstone 3D seismic survey, 70km north of Barrow Island</a>	2004/1761	Not Controlled Action	Completed	
<b>Not controlled action (particular manner)</b>				
<a href="#">'Tourmaline' 2D marine seismic survey, permit areas WA-323-P, WA-330-P and WA-32</a>	2005/2282	Not Controlled Action (Particular Manner)	Post-Approval	
<a href="#">"Leanne" offshore 3D seismic exploration, WA-356-P</a>	2005/1938	Not Controlled Action (Particular Manner)	Post-Approval	
<a href="#">3D Marine Seismic Survey in Permit Areas WA-15-R, WA-18-R, WA-205-P, WA-253-P, WA-267-P and WA-268-P</a>	2003/1271	Not Controlled Action (Particular Manner)	Post-Approval	

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">3D seismic survey</a>	2006/2715	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Aperio 3D Marine Seismic Survey, WA</a>	2012/6648	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Balnaves Condensate Field Development</a>	2011/6188	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cable Seismic Exploration Permit areas WA-323-P and WA-330-P</a>	2008/4227	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">CGGVERITAS 2010 2D Seismic Survey</a>	2010/5714	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">DAVROS MC 3D marine seismic survey northwaet of Dampier, WA</a>	2013/7092	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Northwest Shelf 2D Seismic Survey</a>	2007/3260	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Drilling 35-40 offshore exploration wells in deep water</a>	2008/4461	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Harmony 3D Marine Seismic Survey</a>	2012/6699	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Julimar Brunello Gas Development Project</a>	2011/5936	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Moosehead 2D seismic survey within permit WA-192-P</a>	2005/2167	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Osprey and Dionysus Marine Seismic Survey</a>	2011/6215	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
		Manner)	
<a href="#">Santos Winchester three dimensional seismic survey - WA-323-P &amp; WA-330-P</a>	2011/6107	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">West Panaeus 3D seismic survey</a>	2006/3141	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Westralia SPAN Marine Seismic Survey, WA &amp; NT</a>	2012/6463	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone 3D MAZ Marine Seismic Survey</a>	2011/6058	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2007/3941	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2008/4134	Not Controlled Action (Particular Manner)	Post-Approval

## Key Ecological Features

[ [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
<a href="#">Ancient coastline at 125 m depth contour</a>	North-west
<a href="#">Continental Slope Demersal Fish Communities</a>	North-west

## Biologically Important Areas

Scientific Name	Behaviour	Presence
<b>Marine Turtles</b>		
<a href="#">Chelonia mydas</a>		
Green Turtle [1765]	Internesting buffer	Known to occur
<a href="#">Eretmochelys imbricata</a>		
Hawksbill Turtle [1766]	Internesting buffer	Known to occur

Scientific Name	Behaviour	Presence
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Internesting buffer	Known to occur
<b>Seabirds</b>		
<a href="#">Ardena pacifica</a> Wedge-tailed Shearwater [84292]	Breeding	Known to occur
<b>Sharks</b>		
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Foraging	Known to occur
<b>Whales</b>		
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Distribution	Known to occur
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Migration	Known to occur
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Migration (north and south)	Known to occur



# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.



# 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.

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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. Please see the caveat for interpretation of information provided here.

Report created: 15-Dec-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment 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 [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	1
<a href="#">National Heritage Places:</a>	1
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	2
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	44
<a href="#">Listed Migratory Species:</a>	59

## 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 <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) 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.

<a href="#">Commonwealth Lands:</a>	1
<a href="#">Commonwealth Heritage Places:</a>	1
<a href="#">Listed Marine Species:</a>	100
<a href="#">Whales and Other Cetaceans:</a>	30
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	3
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	4

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	11
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">EPBC Act Referrals:</a>	149
<a href="#">Key Ecological Features (Marine):</a>	6
<a href="#">Biologically Important Areas:</a>	33
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### World Heritage Properties [\[ Resource Information \]](#)

Name	State	Legal Status
<a href="#">The Ningaloo Coast</a>	WA	Declared property

### National Heritage Places [\[ Resource Information \]](#)

Name	State	Legal Status
Natural		
<a href="#">The Ningaloo Coast</a>	WA	Listed place

### 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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

#### Feature Name

Commonwealth Marine Areas (EPBC Act)

Commonwealth Marine Areas (EPBC Act)

### Listed Threatened Species [\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
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#### BIRD

<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Erythrotriorchis radiatus</a> Red Goshawk [942]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Limosa lapponica menzbieri</a> Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Malurus leucopterus edouardi</a> White-winged Fairy-wren (Barrow Island), Barrow Island Black-and-white Fairy-wren [26194]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Pezoporus occidentalis</a> Night Parrot [59350]	Endangered	Species or species habitat may occur within area
<a href="#">Phaethon lepturus fulvus</a> Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area
<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Breeding known to occur within area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area

## FISH

Scientific Name	Threatened Category	Presence Text
<a href="#">Milyeringa veritas</a> Cape Range Cave Gudgeon, Blind Gudgeon [66676]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thunnus maccoyii</a> Southern Bluefin Tuna [69402]	Conservation Dependent	Breeding known to occur within area
<b>MAMMAL</b>		
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Bettongia lesueur Barrow and Boodie Islands subspecies</a> Boodie, Burrowing Bettong (Barrow and Boodie Islands) [88021]	Vulnerable	Translocated population known to occur within area
<a href="#">Dasyurus hallucatus</a> Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat may occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area
<a href="#">Isoodon auratus barrowensis</a> Golden Bandicoot (Barrow Island) [66666]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Lagorchestes conspicillatus conspicillatus</a> Spectacled Hare-wallaby (Barrow Island) [66661]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Macroderma gigas</a> Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Osphranter robustus isabellinus</a> Barrow Island Wallaroo, Barrow Island Euro [89262]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Petrogale lateralis lateralis</a> Black-flanked Rock-wallaby, Moororong, Black-footed Rock Wallaby [66647]	Endangered	Species or species habitat known to occur within area
<a href="#">Rhinonicteris aurantia (Pilbara form)</a> Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat may occur within area

## REPTILE

<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Ctenotus zasticus</a> Hamelin Ctenotus [25570]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area

## SHARK

<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Congregation or aggregation known to occur within area
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Scientific Name	Threatened Category	Presence Text
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat known to occur within area

Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat likely to occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardenna carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
<a href="#">Ardenna pacifica</a> Wedge-tailed Shearwater [84292]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Hydroprogne caspia</a> Caspian Tern [808]		Breeding known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Onychoprion anaethetus</a> Bridled Tern [82845]		Breeding known to occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat known to occur within area
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Breeding known to occur within area
<a href="#">Sternula albifrons</a> Little Tern [82849]		Species or species habitat may occur within area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat known to occur within area
<a href="#">Balaenoptera bonaerensis</a> Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Dugong dugon</a> Dugong [28]		Breeding known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<a href="#">Eubalaena australis as Balaena glacialis australis</a> Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Isurus oxyrinchus</a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
<a href="#">Isurus paucus</a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Mobula alfredi as Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat known to occur within area
<a href="#">Mobula birostris as Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<a href="#">Orcaella heinsohni</a> Australian Snubfin Dolphin [81322]		Species or species habitat known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis pristis</a> Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Sousa sahalensis as Sousa chinensis</a> Australian Humpback Dolphin [87942]		Species or species habitat known to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat may occur within area
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Species or species habitat may occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Thalasseus bergii</a> Greater Crested Tern [83000]		Breeding known to occur within area

## Other Matters Protected by the EPBC Act

### Commonwealth Lands [\[ Resource Information \]](#)

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.

Commonwealth Land Name	State
Defence	
Defence - EXMOUTH VLF TRANSMITTER STATION [50123]	WA

### Commonwealth Heritage Places [\[ Resource Information \]](#)

Name	State	Status
Natural		
<a href="#">Ningaloo Marine Area - Commonwealth Waters</a>	WA	Listed place



Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
Bird		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat likely to occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
<a href="#">Ardena carneipes as Puffinus carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
<a href="#">Ardena pacifica as Puffinus pacificus</a> Wedge-tailed Shearwater [84292]		Breeding known to occur within area
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Chalcites osculans as Chrysococcyx osculans</a> Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area
<a href="#">Chroicocephalus novaehollandiae as Larus novaehollandiae</a> Silver Gull [82326]		Breeding known to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
<a href="#">Fregata minor</a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat may occur within area overfly marine area
<a href="#">Hydroprogne caspia as Sterna caspia</a> Caspian Tern [808]		Breeding known to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Species or species habitat may occur within area overfly marine area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Onychoprion anaethetus as Sterna anaethetus</a> Bridled Tern [82845]		Breeding known to occur within area
<a href="#">Onychoprion fuscatus as Sterna fuscata</a> Sooty Tern [90682]		Breeding known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Phaethon lepturus fulvus</a> Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area
<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Breeding known to occur within area
<a href="#">Sternula albifrons as Sterna albifrons</a> Little Tern [82849]		Species or species habitat may occur within area
<a href="#">Sternula nereis as Sterna nereis</a> Fairy Tern [82949]		Breeding known to occur within area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalasseus bengalensis as Sterna bengalensis</a> Lesser Crested Tern [66546]		Breeding known to occur within area
<a href="#">Thalasseus bergii as Sterna bergii</a> Greater Crested Tern [83000]		Breeding known to occur within area
<b>Fish</b>		
<a href="#">Acentronura larsonae</a> Helen's Pygmy Pipehorse [66186]		Species or species habitat may occur within area
<a href="#">Bulbonaricus brauni</a> Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys latispinosus</a> Muiron Island Pipefish [66196]		Species or species habitat may occur within area
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Corythoichthys flavofasciatus</a> Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area
<a href="#">Cosmocampus banneri</a> Roughridge Pipefish [66206]		Species or species habitat may occur within area
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
<a href="#">Doryrhamphus excisus</a> Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Doryrhamphus multiannulatus</a> Many-banded Pipefish [66717]		Species or species habitat may occur within area
<a href="#">Doryrhamphus negrosensis</a> Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
<a href="#">Festucalex scalaris</a> Ladder Pipefish [66216]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus nitidus</a> Glittering Pipefish [66224]		Species or species habitat may occur within area
<a href="#">Halicampus spinostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribbioned Pipehorse, Ribbioned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Hippocampus spinosissimus</a> Hedgehog Seahorse [66239]		Species or species habitat may occur within area
<a href="#">Hippocampus trimaculatus</a> Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Phoxocampus belcheri</a> Black Rock Pipefish [66719]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Mammal</b>		
<a href="#">Dugong dugon</a> Dugong [28]		Breeding known to occur within area
<b>Reptile</b>		

Scientific Name	Threatened Category	Presence Text
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Sea Snake, Dubois' Seasnake, Reef Shallows Sea Snake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus laevis</a> Olive Sea Snake, Olive-brown Sea Snake [1120]		Species or species habitat may occur within area
<a href="#">Aipysurus mosaicus as Aipysurus eydouxii</a> Mosaic Sea Snake [87261]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Sea Snake, Mjoberg's Sea Snake [1121]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Emydocephalus annulatus</a> Eastern Turtle-headed Sea Snake [1125]		Species or species habitat may occur within area
<a href="#">Ephalophis greyi</a> Mangrove Sea Snake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Hydrelaps darwiniensis</a> Port Darwin Sea Snake, Black-ringed Mangrove Sea Snake [1100]		Species or species habitat may occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Sea Snake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Sea Snake, Bar-bellied Sea Snake [1104]		Species or species habitat may occur within area
<a href="#">Hydrophis kingii as Disteira kingii</a> Spectacled Sea Snake [93511]		Species or species habitat may occur within area
<a href="#">Hydrophis macdowelli as Hydrophis mcdowelli</a> MacDowell's Sea Snake, Small-headed Sea Snake, [75601]		Species or species habitat may occur within area
<a href="#">Hydrophis major as Disteira major</a> Olive-headed Sea Snake [93512]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Sea Snake, Ornate Reef Sea Snake [1111]		Species or species habitat may occur within area
<a href="#">Hydrophis peronii as Acalyptophis peronii</a> Horned Sea Snake [93509]		Species or species habitat may occur within area
<a href="#">Hydrophis platurus as Pelamis platurus</a> Yellow-bellied Sea Snake [93517]		Species or species habitat may occur within area
<a href="#">Hydrophis stokesii as Astrotia stokesii</a> Stokes' Sea Snake [93510]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area

Whales and Other Cetaceans		[ Resource Information ]
Current Scientific Name	Status	Type of Presence
Mammal		



Current Scientific Name	Status	Type of Presence
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
<a href="#">Balaenoptera bonaerensis</a> Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera borealis</a> Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Migration route known to occur within area
<a href="#">Balaenoptera physalus</a> Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area
<a href="#">Feresa attenuata</a> Pygmy Killer Whale [61]		Species or species habitat may occur within area
<a href="#">Globicephala macrorhynchus</a> Short-finned Pilot Whale [62]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area



Current Scientific Name	Status	Type of Presence
<a href="#">Kogia breviceps</a> Pygmy Sperm Whale [57]		Species or species habitat may occur within area
<a href="#">Kogia sima</a> Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
<a href="#">Lagenodelphis hosei</a> Fraser's Dolphin, Sarawak Dolphin [41]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]		Breeding known to occur within area
<a href="#">Mesoplodon densirostris</a> Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
<a href="#">Orcaella heinsohni</a> Australian Snubfin Dolphin [81322]		Species or species habitat known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Peponocephala electra</a> Melon-headed Whale [47]		Species or species habitat may occur within area
<a href="#">Physeter macrocephalus</a> Sperm Whale [59]		Species or species habitat may occur within area
<a href="#">Pseudorca crassidens</a> False Killer Whale [48]		Species or species habitat likely to occur within area
<a href="#">Sousa sahalensis</a> Australian Humpback Dolphin [87942]		Species or species habitat known to occur within area

Current Scientific Name	Status	Type of Presence
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Stenella coeruleoalba</a> Striped Dolphin, Euphrosyne Dolphin [52]		Species or species habitat may occur within area
<a href="#">Stenella longirostris</a> Long-snouted Spinner Dolphin [29]		Species or species habitat may occur within area
<a href="#">Steno bredanensis</a> Rough-toothed Dolphin [30]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area
<a href="#">Ziphius cavirostris</a> Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

### Australian Marine Parks [ Resource Information ]

Park Name	Zone & IUCN Categories
Gascoyne	Multiple Use Zone (IUCN VI)
Montebello	Multiple Use Zone (IUCN VI)
Ningaloo	Recreational Use Zone (IUCN IV)

### Habitat Critical to the Survival of Marine Turtles

Scientific Name	Behaviour	Presence
Aug - Sep		

Scientific Name	Behaviour	Presence
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Nesting	Known to occur
Dec - Jan		
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Nesting	Known to occur
Nov-Feb		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Nesting	Known to occur
Nov - May		
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Nesting	Known to occur

## Extra Information

State and Territory Reserves			<a href="#">[ Resource Information ]</a>
Protected Area Name	Reserve Type	State	
Barrow Island	Nature Reserve	WA	
Barrow Island	Marine Management Area	WA	
Barrow Island	Marine Park	WA	
Bessieres Island	Nature Reserve	WA	
Montebello Islands	Conservation Park	WA	
Montebello Islands	Conservation Park	WA	
Montebello Islands	Marine Park	WA	
Muiron Islands	Nature Reserve	WA	
Muiron Islands	Marine Management Area	WA	
Ningaloo	Marine Park	WA	
Unnamed WA41080	5(1)(h) Reserve	WA	

Nationally Important Wetlands		<a href="#">[ Resource Information ]</a>
Wetland Name	State	
<a href="#">Cape Range Subterranean Waterways</a>	WA	

**EPBC Act Referrals** [\[ Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status
<a href="#">Browse to North West Shelf Development, Indian Ocean, WA</a>	2018/8319		Approval
<a href="#">Gorgon Gas Development</a>	2003/1294		Post-Approval
<a href="#">Project Highclere Cable Lay and Operation</a>	2022/09203		Completed
<b>Action clearly unacceptable</b>			
<a href="#">Highlands 3D Marine Seismic Survey</a>	2012/6680	Action Clearly Unacceptable	Completed
<b>Controlled action</b>			
<a href="#">'Van Gogh' Petroleum Field Development</a>	2007/3213	Controlled Action	Post-Approval
<a href="#">Construct and operate LNG &amp; domestic gas plant including onshore and offshore facilities - Wheatston</a>	2008/4469	Controlled Action	Post-Approval
<a href="#">Develop Jansz-lo deepwater gas field in Permit Areas WA-18-R, WA-25-R and WA-26-</a>	2005/2184	Controlled Action	Post-Approval
<a href="#">Development of Angel gas and condensate field, North West Shelf</a>	2004/1805	Controlled Action	Post-Approval
<a href="#">Development of Browse Basin Gas Fields (Upstream)</a>	2008/4111	Controlled Action	Completed
<a href="#">Development of Coniston/Novara fields within the Exmouth Sub-basin</a>	2011/5995	Controlled Action	Post-Approval
<a href="#">Development of Stybarrow petroleum field incl drilling and facility installation</a>	2004/1469	Controlled Action	Post-Approval
<a href="#">Echo-Yodel Production Wells</a>	2000/11	Controlled Action	Post-Approval
<a href="#">Enfield full field development</a>	2001/257	Controlled Action	Post-Approval
<a href="#">Equus Gas Fields Development Project, Carnarvon Basin</a>	2012/6301	Controlled Action	Completed
<a href="#">Gorgon Gas Development 4th Train Proposal</a>	2011/5942	Controlled Action	Post-Approval
<a href="#">Greater Enfield (Vincent) Development</a>	2005/2110	Controlled Action	Post-Approval
<a href="#">Light Crude Oil Production</a>	2001/365	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Controlled action</b>			
<a href="#">Pluto Gas Project</a>	2005/2258	Controlled Action	Completed
<a href="#">Pluto Gas Project Including Site B</a>	2006/2968	Controlled Action	Post-Approval
<a href="#">Pyrenees Oil Fields Development</a>	2005/2034	Controlled Action	Post-Approval
<a href="#">Vincent Appraisal Well</a>	2000/22	Controlled Action	Post-Approval
<b>Not controlled action</b>			
<a href="#">'Goodwyn A' Low Pressure Train Project</a>	2003/914	Not Controlled Action	Completed
<a href="#">'Van Gogh' Oil Appraisal Drilling Program, Exploration Permit Area WA-155-P(1)</a>	2006/3148	Not Controlled Action	Completed
<a href="#">Bultaco-2, Laverda-2, Laverda-3 and Montesa-2 Appraisal Wells</a>	2000/103	Not Controlled Action	Completed
<a href="#">Carnarvon 3D Marine Seismic Survey</a>	2004/1890	Not Controlled Action	Completed
<a href="#">Construction and operation of an unmanned sea platform and connecting pipeline to Varanus Island for</a>	2004/1703	Not Controlled Action	Completed
<a href="#">Development of Halyard Field off the west coast of WA</a>	2010/5611	Not Controlled Action	Completed
<a href="#">Development of Mutineer and Exeter petroleum fields for oil production, Permit</a>	2003/1033	Not Controlled Action	Completed
<a href="#">Drilling of an exploration well Gats-1 in Permit Area WA-261-P</a>	2004/1701	Not Controlled Action	Completed
<a href="#">Eagle-1 Exploration Drilling, North West Shelf, WA</a>	2019/8578	Not Controlled Action	Completed
<a href="#">Echo A Development WA-23-L, WA-24-L</a>	2005/2042	Not Controlled Action	Completed
<a href="#">Exploration drilling well WA-155-P(1)</a>	2003/971	Not Controlled Action	Completed
<a href="#">Exploration of appraisal wells</a>	2006/3065	Not Controlled Action	Completed
<a href="#">Exploration Well in Permit Area WA-155-P(1)</a>	2002/759	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action</b>			
<a href="#">Exploratory drilling in permit area WA-225-P</a>	2001/490	Not Controlled Action	Completed
<a href="#">HCA05X Macedon Experimental Survey</a>	2004/1926	Not Controlled Action	Completed
<a href="#">Hess Exploration Drilling Programme</a>	2007/3566	Not Controlled Action	Completed
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed
<a href="#">Infill Production Well (Griffin-9)</a>	2001/417	Not Controlled Action	Completed
<a href="#">Jansz-2 and 3 Appraisal Wells</a>	2002/754	Not Controlled Action	Completed
<a href="#">Klammer 2D Seismic Survey</a>	2002/868	Not Controlled Action	Completed
<a href="#">Maia-Gaea Exploration wells</a>	2000/17	Not Controlled Action	Completed
<a href="#">Montesa-1 and Bultaco-1 Exploration Wells</a>	2000/102	Not Controlled Action	Completed
<a href="#">North Rankin B gas compression facility</a>	2005/2500	Not Controlled Action	Completed
<a href="#">Pipeline System Modifications Project</a>	2000/3	Not Controlled Action	Completed
<a href="#">Project Highclere Geophysical Survey</a>	2021/9023	Not Controlled Action	Completed
<a href="#">Searipple gas and condensate field development</a>	2000/89	Not Controlled Action	Completed
<a href="#">Spool Base Facility</a>	2001/263	Not Controlled Action	Completed
<a href="#">Subsea Gas Pipeline From Stybarrow Field to Griffin Venture Gas Export Pipeline</a>	2005/2033	Not Controlled Action	Completed
<a href="#">sub-sea tieback of Perseus field wells</a>	2004/1326	Not Controlled Action	Completed
<a href="#">Telstra North Rankin Spur Fibre Optic Cable</a>	2016/7836	Not Controlled Action	Completed
<a href="#">Thevenard Island Retirement Project</a>	2015/7423	Not Controlled Action	Completed



Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action</b>			
<a href="#">To construct and operate an offshore submarine fibre optic cable, WA</a>	2014/7373	Not Controlled Action	Completed
<a href="#">Wanda Offshore Research Project, 80 km north-east of Exmouth, WA</a>	2018/8293	Not Controlled Action	Completed
<a href="#">Western Flank Gas Development</a>	2005/2464	Not Controlled Action	Completed
<a href="#">Wheatstone 3D seismic survey, 70km north of Barrow Island</a>	2004/1761	Not Controlled Action	Completed
<b>Not controlled action (particular manner)</b>			
<a href="#">'Kate' 3D marine seismic survey, exploration permits WA-320-P and WA-345-P, 60km</a>	2005/2037	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">'Tourmaline' 2D marine seismic survey, permit areas WA-323-P, WA-330-P and WA-32</a>	2005/2282	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">"Leanne" offshore 3D seismic exploration, WA-356-P</a>	2005/1938	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">2D and 3D seismic surveys</a>	2005/2151	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">2D Seismic Survey</a>	2005/2146	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">2D Seismic Survey Permit Area WA-352-P</a>	2008/4628	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">2D seismic survey within permit WA-291</a>	2007/3265	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D marine seismic survey</a>	2008/4281	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Marine Seismic Survey in Permit Areas WA-15-R, WA-18-R, WA-205-P, WA-253-P, WA-267-P and WA-268-P</a>	2003/1271	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">3D Marine Seismic Survey in WA 457-P &amp; WA 458-P, North West Shelf, offshore WA</a>	2013/6862	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Marine Seismic Surveys - Contos CT-13 &amp; Supertubes CT-13, offshore WA</a>	2013/6901	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D seismic survey</a>	2006/2715	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Seismic Survey, WA</a>	2008/4428	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D Seismic Survey in the Carnarvon Basin on the North West Shelf</a>	2002/778	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">3D seismic survey</a>	2006/2781	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Apache Northwest Shelf Van Gogh Field Appraisal Drilling Program</a>	2007/3495	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Aperio 3D Marine Seismic Survey, WA</a>	2012/6648	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Artemis-1 Drilling Program (WA-360-P)</a>	2010/5432	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Babylon 3D Marine Seismic Survey, Commonwealth Waters, nr Exmouth WA</a>	2013/7081	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Balnaves Condensate Field Development</a>	2011/6188	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cable Seismic Exploration Permit areas WA-323-P and WA-330-P</a>	2008/4227	Not Controlled Action (Particular Manner)	Post-Approval



Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
		Manner)	
<a href="#">CGGVERITAS 2010 2D Seismic Survey</a>	2010/5714	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Charon 3D Marine Seismic Survey</a>	2007/3477	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Cue Seismic Survey within WA-359-P, WA-361-P and WA-360-P</a>	2007/3647	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">CVG 3D Marine Seismic Survey</a>	2012/6654	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">DAVROS MC 3D marine seismic survey northwaet of Dampier, WA</a>	2013/7092	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Decommissioning of the Legendre facilities</a>	2010/5681	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Drilling Program</a>	2010/5532	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Deep Water Northwest Shelf 2D Seismic Survey</a>	2007/3260	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Demeter 3D Seismic Survey, off Dampier, WA</a>	2002/900	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Draeck 3D Marine Seismic Survey, WA-205-P</a>	2006/3067	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Drilling 35-40 offshore exploration wells in deep water</a>	2008/4461	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">Eendracht Multi-Client 3D Marine Seismic Survey</a>	2009/4749	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Enfield M3 &amp; Vincent 4D Marine Seismic Surveys</a>	2008/3981	Not Controlled Action (Particular Manner)	Completed
<a href="#">Enfield M3 4D, Vincent 4D &amp; 4D Line Test Marine Seismic Surveys</a>	2008/4122	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Enfield M4 4D Marine Seismic Survey</a>	2008/4558	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Enfield oilfield 3D Seismic Survey</a>	2006/3132	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Exploration drilling of Zeus-1 well</a>	2008/4351	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Fletcher-Finucane Development, WA26-L and WA191-P</a>	2011/6123	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Foxhound 3D Non-Exclusive Marine Seismic Survey</a>	2009/4703	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Gazelle 3D Marine Seismic Survey in WA-399-P and WA-42-L</a>	2010/5570	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Glencoe 3D Marine Seismic Survey WA-390-P</a>	2007/3684	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Greater Western Flank Phase 1 gas Development</a>	2011/5980	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Grimalkin 3D Seismic Survey</a>	2008/4523	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
		Manner)	
<a href="#">Harmony 3D Marine Seismic Survey</a>	2012/6699	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Harpy 1 exploration well</a>	2001/183	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Huzzas MC3D Marine Seismic Survey (HZ-13) Carnarvon Basin, offshore WA</a>	2013/7003	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Huzzas phase 2 marine seismic survey, Exmouth Plateau, Northern Carnarvon Basin, WA</a>	2013/7093	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">John Ross &amp; Rosella Off Bottom Cable Seismic Exploration Program</a>	2008/3966	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2009/4801	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Judo Marine 3D Seismic Survey within and adjacent to WA-412-P</a>	2008/4630	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Julimar Brunello Gas Development Project</a>	2011/5936	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Klimt 2D Marine Seismic Survey</a>	2007/3856	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Laverda 3D Marine Seismic Survey and Vincent M1 4D Marine Seismic Survey</a>	2010/5415	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Macedon Gas Field Development</a>	2008/4605	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">Moosehead 2D seismic survey within permit WA-192-P</a>	2005/2167	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Munmorah 2D seismic survey within permits WA-308/9-P</a>	2003/970	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Ocean Bottom Cable Seismic Program, WA-264-P</a>	2007/3844	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Ocean Bottom Cable Seismic Survey</a>	2005/2017	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Offshore Drilling Campaign</a>	2011/5830	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Orcus 3D Marine Seismic Survey in WA-450-P</a>	2010/5723	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Osprey and Dionysus Marine Seismic Survey</a>	2011/6215	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Pomodoro 3D Marine Seismic Survey in WA-426-P and WA-427-P</a>	2010/5472	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Pyrenees 4D Marine Seismic Monitor Survey, HCA12A</a>	2012/6579	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Pyrenees-Macedon 3D marine seismic survey</a>	2005/2325	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Reindeer gas reservoir development, Devil Creek, Carnarvon Basin - WA</a>	2007/3917	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Rose 3D Seismic Program</a>	2008/4239	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
		Manner)	
<a href="#">Rydal-1 Petroleum Exploration Well, WA</a>	2012/6522	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Santos Winchester three dimensional seismic survey - WA-323-P &amp; WA-330-P</a>	2011/6107	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Stag 4D &amp; Reindeer MAZ Marine Seismic Surveys, WA</a>	2013/7080	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Stag Off-bottom Cable Seismic Survey</a>	2007/3696	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Stybarrow 4D Marine Seismic Survey</a>	2011/5810	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Stybarrow Baseline 4D marine seismic survey</a>	2008/4530	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Tidepole Maz 3D Seismic Survey Campaign</a>	2007/3706	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Triton 3D Marine Seismic Survey, WA-2-R and WA-3-R</a>	2006/2609	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Undertake a 3D marine seismic survey</a>	2010/5695	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Undertake a three dimensional marine seismic survey</a>	2010/5679	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Undertake a three dimensional marine seismic survey</a>	2010/5715	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
<b>Not controlled action (particular manner)</b>			
<a href="#">Vincent M1 and Enfield M5 4D Marine Seismic Survey</a>	2010/5720	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Warramunga Non-Inclusive 3D Seismic Survey</a>	2008/4553	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">West Anchor 3D Marine Seismic Survey</a>	2008/4507	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">West Panaeus 3D seismic survey</a>	2006/3141	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Westralia SPAN Marine Seismic Survey, WA &amp; NT</a>	2012/6463	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone 3D MAZ Marine Seismic Survey</a>	2011/6058	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2008/4134	Not Controlled Action (Particular Manner)	Post-Approval
<a href="#">Wheatstone Iago Appraisal Well Drilling</a>	2007/3941	Not Controlled Action (Particular Manner)	Post-Approval
<b>Referral decision</b>			
<a href="#">3D Seismic Survey</a>	2008/4219	Referral Decision	Completed
<a href="#">Bianchi 3D Marine Seismic Survey, Carnavon Basin, WA</a>	2013/7078	Referral Decision	Completed
<a href="#">CVG 3D Marine Seismic Survey</a>	2012/6270	Referral Decision	Completed
<a href="#">Enfield 4D Marine Seismic Surveys, Production Permit WA-28-L</a>	2005/2370	Referral Decision	Completed
<a href="#">Rose 3D Seismic acquisition survey</a>	2008/4220	Referral Decision	Completed
<a href="#">Stybarrow Baseline 4D Marine Seismic Survey (Permit Areas WA-</a>	2008/4165	Referral Decision	Completed



Title of referral	Reference	Referral Outcome	Assessment Status
<b>Referral decision</b>			
<a href="#">255-P, WA-32-L, WA-</a>			
<a href="#">Two Dimensional Transition Zone Seismic Survey - TP/7 (R1)</a>	2010/5507	Referral Decision	Completed

## Key Ecological Features

[ [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
<a href="#">Ancient coastline at 125 m depth contour</a>	North-west
<a href="#">Canyons linking the Cuvier Abyssal Plain and the Cape Range Peninsula</a>	North-west
<a href="#">Commonwealth waters adjacent to Ningaloo Reef</a>	North-west
<a href="#">Continental Slope Demersal Fish Communities</a>	North-west
<a href="#">Exmouth Plateau</a>	North-west
<a href="#">Glomar Shoals</a>	North-west

## Biologically Important Areas

Scientific Name	Behaviour	Presence
<b>Dugong</b>		
<a href="#">Dugong dugon</a>		
Dugong [28]	Breeding	Known to occur
<a href="#">Dugong dugon</a>		
Dugong [28]	Calving	Known to occur
<a href="#">Dugong dugon</a>		
Dugong [28]	Foraging (high density seagrass beds)	Known to occur
<a href="#">Dugong dugon</a>		
Dugong [28]	Nursing	Known to occur

## Marine Turtles

<a href="#">Caretta caretta</a>		
Loggerhead Turtle [1763]	Internesting buffer	Known to occur
<a href="#">Caretta caretta</a>		
Loggerhead Turtle [1763]	Nesting	Known to occur

Scientific Name	Behaviour	Presence
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Aggregation	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Basking	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Foraging	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Internesting	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Internesting buffer	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Mating	Known to occur
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Nesting	Known to occur
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Foraging	Known to occur
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Internesting buffer	Known to occur
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Mating	Known to occur
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Nesting	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Aggregation	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Foraging	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Internesting	Known to occur



Scientific Name	Behaviour	Presence
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Internesting buffer	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Mating	Known to occur
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Nesting	Known to occur
<b>Seabirds</b>		
<a href="#">Ardena pacifica</a> Wedge-tailed Shearwater [84292]	Breeding	Known to occur
<a href="#">Sterna dougallii</a> Roseate Tern [817]	Breeding	Known to occur
<a href="#">Sternula nereis</a> Fairy Tern [82949]	Breeding	Known to occur
<a href="#">Thalasseus bengalensis</a> Lesser Crested Tern [66546]	Breeding	Known to occur
<b>Sharks</b>		
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Foraging	Known to occur
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Foraging (high density prey)	Known to occur
<b>Whales</b>		
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Distribution	Known to occur
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Foraging	Known to occur
<a href="#">Balaenoptera musculus brevicauda</a> Pygmy Blue Whale [81317]	Migration	Known to occur
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Migration (north and south)	Known to occur



# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# 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.

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## **APPENDIX D DEPARTMENT OF PLANNING LAND, HERITAGE AND ABORIGINAL ENQUIRY SYSTEM RESULTS**

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### Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Shapefile - OA\_AreaD

### Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

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 provide the details to the Department via <https://alt.jotfor.ms/DPLH/aboriginal-heritage-enquiry> and we will make every effort to rectify it as soon as possible.

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# Aboriginal Cultural Heritage Inquiry System

## List of Aboriginal Cultural Heritage (ACH) Register

### Coordinates

Map coordinates are based on the GDA 94 Datum.

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Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

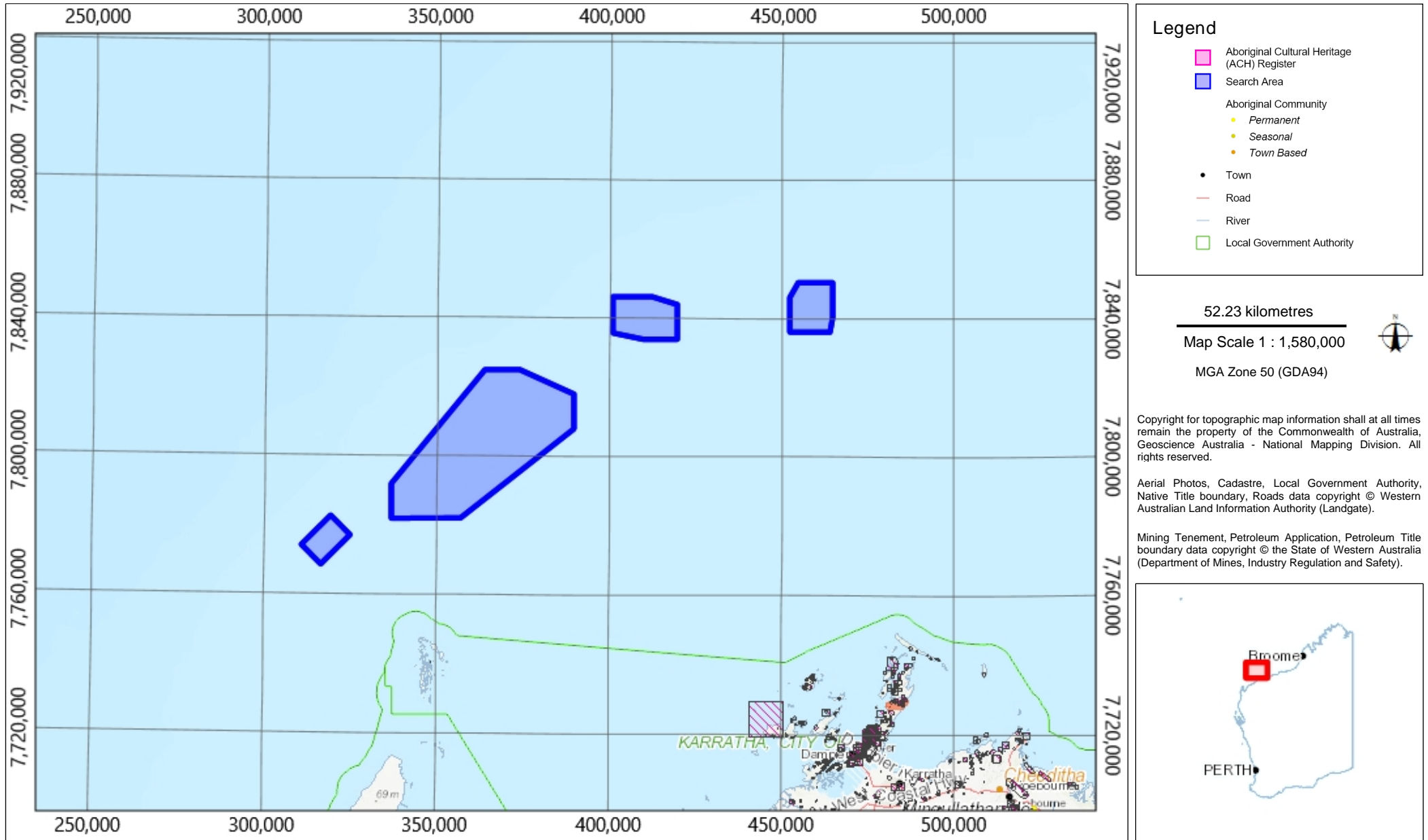
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# Aboriginal Cultural Heritage Inquiry System

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## Map of Aboriginal Cultural Heritage (ACH) Register



### Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Shapefile - GWA\_GPGT\_EMBA. Warning: Search area complex so results may be inaccurate. Contact DPLH for assistance.

### Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the Aboriginal Heritage Act 1972.

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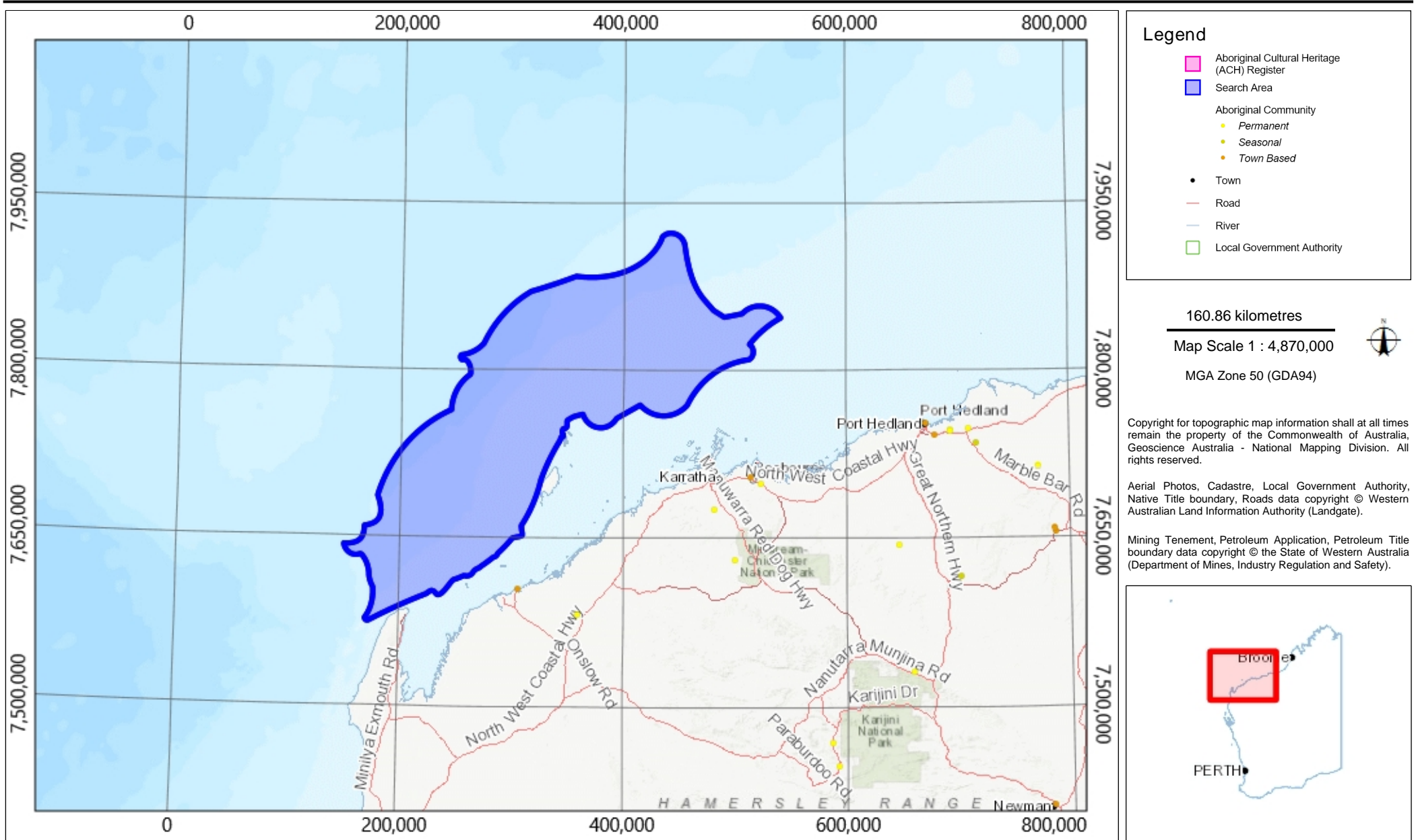
Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

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# Aboriginal Cultural Heritage Inquiry System

## Map of Aboriginal Cultural Heritage (ACH) Register

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## APPENDIX E NOPSEMA REPORTING FORMS

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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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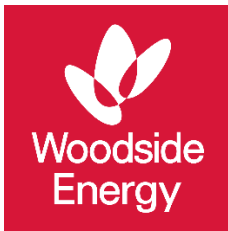
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## **Appendix F**

### **GWA Geophysical and Geotechnical Surveys – Environment Plan**

- **Table 1: Assessment of Relevance**
- **Consultation Activities**
- **Table 2: Consultation Report with Relevant Persons or Organisations**
- **Table 3: Engagement Report with Persons or Organisations Assessed as Not Relevant**
- **Record of Consultation**

Date: April 2024

Revision: 2



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## RELEVANCY ASSESSMENT

### Assessment of Relevant Persons for the Proposed Activity

The result of Woodside’s assessment of relevant persons in accordance with regulation 25 of the Environment Regulations is outlined below at **Table 1** and **Table 2**.

Persons or organisations that Woodside assessed as not relevant but nonetheless chose to contact at its discretion in accordance with **Section 5.3.4** or self-identified and Woodside assessed as not relevant are summarised below at **Table 1** and **Table 3**.

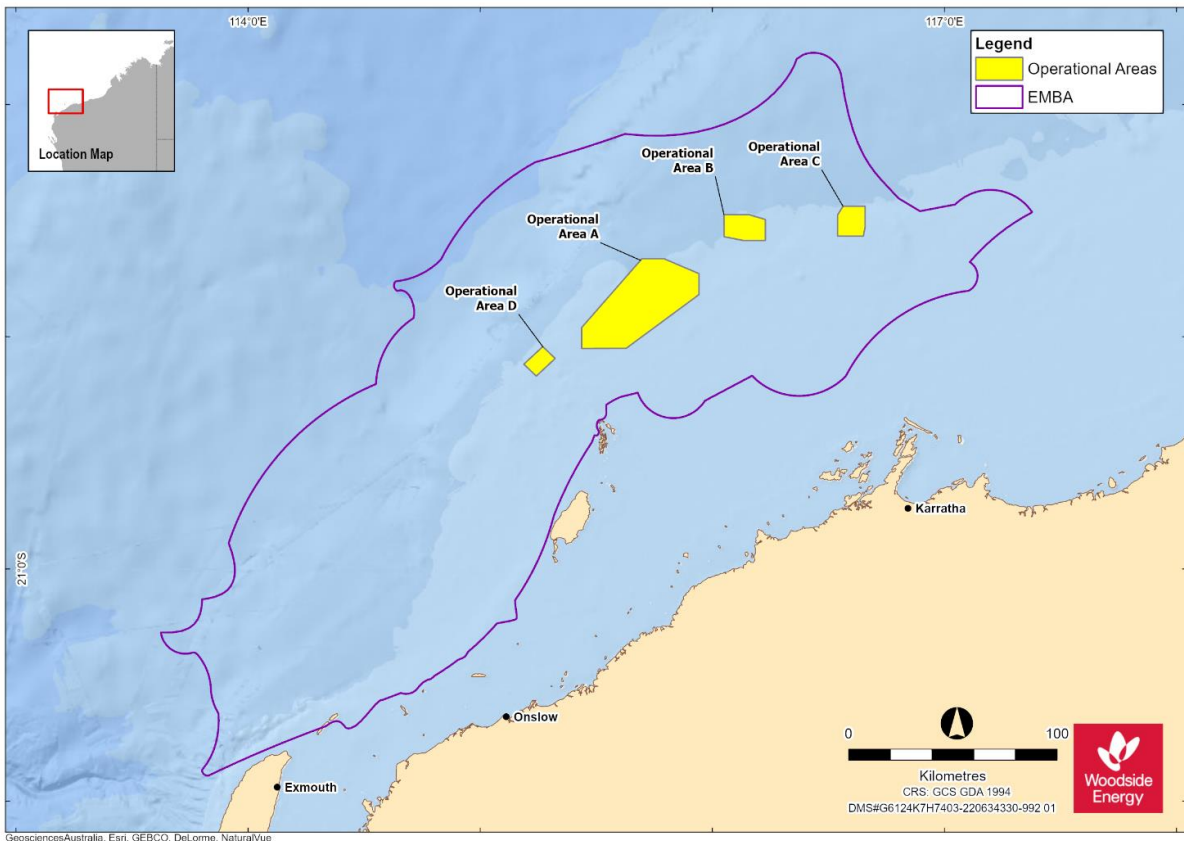


Figure 1: Operational Area and EMBA for this EP

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**Table 1: Assessment of Relevance**

Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
<b>Commonwealth and WA State Government Departments or Agencies – Marine</b>			
Australian Border Force (ABF)	Responsible for coordinating maritime security	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(a) of the Environment Regulations. ABF's responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes
Australian Fisheries Management Authority (AFMA)	Responsible for managing Commonwealth fisheries	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(a) of the Environment Regulations. The North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA. AFMA's responsibilities may be relevant to the activity as the North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Australian Hydrographic Office (AHO)	Responsible for maritime safety and Notices to Mariners	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(a) of the Environment Regulations). AHO's responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes
Australian Maritime Safety Authority (AMSA) – Marine Safety	Statutory agency for vessel safety and navigation	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(a) of the Environment Regulations. AMSA – Marine Safety's responsibilities may be relevant to the activity as there are proposed vessel activities.	Yes
Australian Maritime Safety Authority (AMSA) – Marine Pollution	Legislated responsibility for oil pollution response in Commonwealth waters	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(a) of the Environment Regulations. AMSA – Marine Pollution's responsibilities may be relevant to the activity as the proposed activity has a hydrocarbon spill risk which may require AMSA response in Commonwealth waters.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries	Responsible for implementing Commonwealth policies and programs to support agriculture, fishery, food and forestry industries	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 25(1)(a) of the Environment Regulations. The North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA. DAFF - Fisheries responsibilities may be relevant to the activity as the North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Department of Defence (DoD)	Responsible for defending Australia and its national interests.	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 25(1)(a) of the Environment Regulations. DoD’s responsibilities may be relevant to the activity as defence training areas lie within the EMBA.	Yes
Department of Primary Industries and Regional Development (DPIRD)	Responsible for managing State fisheries	Woodside has applied its methodology for ‘Government departments / agencies – marine’ under regulation 25(1)(b) of the Environment Regulations.  The Mackerel Managed Fishery (Area 2), Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery have been active in the Operational Area within the last 5 years.  The Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, and Nickol Bay Prawn Managed Fishery have been active in the EMBA within the last 5 years.  DPIRD’s responsibilities may be relevant to the activity as the government department responsible for State fisheries.	Yes
Department of Transport (DoT)	Legislated responsibility for oil pollution response in State waters	Woodside has applied its methodology for ‘Government departments / agencies –marine’ under regulation 25(1)(b) of the Environment Regulations. The proposed activity has a hydrocarbon spill risk, which may require DoT response in State waters.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Department of Planning, Lands and Heritage (DPLH)	Responsible for state level land use planning and management, and oversight of Aboriginal cultural heritage and built heritage matters.	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(b) of the Environment Regulations. There is known Maritime Cultural Heritage overlapping the EMBA.	Yes
Western Australian Museum	Manages 200 shipwreck sites of the 1,500 known to be located off the Western Australian coast.	Woodside has applied its methodology for 'Historical cultural heritage groups or organisations' under regulation 25(1)(d) of the Environment Regulations. There are known shipwrecks overlapping the EMBA which the Western Australian Museum may be responsible for.	Yes
Pilbara Ports Authority	Responsible for the operation of the Port of Dampier.	Woodside has applied its methodology for 'Government departments / agencies – marine' under regulation 25(1)(b) of the Environment Regulations. The proposed activity does not have the potential to impact Pilbara Ports Authority's responsibilities as the EMBA does not overlap the Pilbara Ports Authority's area of responsibility.	No
<b>Commonwealth and WA State Government Departments or Agencies – Environment</b>			
Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel)	DAFF administers, implements and enforces the Biosecurity Act 2015. The Department requests to be consulted where an activity has the potential to transfer marine pests.  DAFF also has inspection and reporting requirements to ensure that all conveyances (vessels, installations and aircraft) arriving in Australian territory comply with international health regulations and that any biosecurity risk is managed.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 25(1)(a) of the Environment Regulations.  DAFF – Biosecurity's responsibilities may be relevant to the proposed activities in the EMBA in the prevention of introduced marine species.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
	<p>The Department requests to be consulted where an activity involves the movement of aircraft or vessels between Australia and offshore petroleum activities either inside or outside Australian territory.</p>		
<p>Department of Climate Change, Energy, the Environment and Water (DCCEEW)</p>	<p>Responsible for implementing Commonwealth policies and programs to support climate change, sustainable energy use, water resources, the environment and our heritage.</p> <p><i>Administers the Underwater Cultural Heritage Act 2018 in collaboration with the States, Northern Territory and Norfolk Island, which is responsible for the protection of shipwrecks, sunken aircraft and other types of underwater heritage and their associated artefacts in Commonwealth waters.</i></p>	<p>Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 25(1)(a) of the Environment Regulations.</p> <p>DCCEEW's responsibilities may be relevant to the proposed activities in the EMBA as there are potential environmental impacts from the proposed activity.</p> <p>There are known Maritime Cultural Heritage overlapping the EMBA.</p>	<p>Yes</p>
<p>Director of National Parks (DNP)</p>	<p>Responsible for the management of Commonwealth parks and conservation zones.</p>	<p>Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 25(1)(a) of the Environment Regulations.</p> <p>DNP's responsibilities may be relevant to the activity as DNP requires an awareness of activities that occur within AMPs, and an understanding of potential impacts and risks to the values of parks (NOPSEMA guidance note: N-04750-GN1785 A620236, June 2020). Titleholders are required to consult</p>	<p>Yes</p>

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		DNP on offshore petroleum and greenhouse gas exploration activities if they occur in, or may impact on the values of marine parks, including where potential spill response activities may occur in the event of a spill (i.e., scientific monitoring).	
Ningaloo Coast World Heritage Advisory Committee (NCWHAC)	Supports the DBCA to manage the Ningaloo Coast World Heritage Area.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 25(1)(a) of the Environment Regulations. The NCWHAC's responsibilities may be relevant to the activity as the EMBA overlaps the Ningaloo Marine Park.	Yes
Department of Biodiversity, Conservation and Attractions (DBCA)	Responsible for managing WA's parks, forests and reserves to achieve wildlife conservation and provide sustainable recreation and tourism opportunities.	Woodside has applied its methodology for 'Government departments / agencies – environment' under regulation 25(1)(b) of the Environment Regulations. The DBCA's responsibilities may be relevant to the activity as EMBA overlaps WA parks, forests or reserves. Activities have the potential to impact marine tourism in the EMBA.	Yes
<b>Commonwealth and State Government Departments or Agencies – Industry</b>			
Department of Industry, Science and Resources (DISR)	Department of relevant Commonwealth Minister.	Required to be consulted under regulation 25(1)(a) of the Environment Regulations.	Yes
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) (formerly DMIRS)	Department of relevant State Minister	Required to be consulted under regulation 25(1)(c) of the Environment Regulations).	Yes
<b>Commonwealth Commercial fisheries and representative bodies</b>			
North West Slope and Trawl Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Southern Bluefin Tuna Fishery	Commonwealth commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area and EMBA, it has not been active in the Operational Area or EMBA within the last 5 years.</p> <p>Woodside does not consider that the proposed activity will present a risk to licence holders, given since 1992, the majority of Australian catch has concentrated in south-eastern Australia. (Patterson et al., 2022). In addition, given fishing methods by licence holders for species fished in this fishery (Australia has a 35% share of total global allowable catch of Southern Bluefin Tuna, which is value-added through tuna ranching near Port Lincoln (South Australia), or fishing effort in New South Wales (Australian Southern Bluefin Tuna Industry Association).</p>	No
Western Deepwater Trawl Fishery	Commonwealth commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.</p>	Yes
Western Skipjack Fishery	Commonwealth commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.</p> <p>Woodside does not consider that the activity will present a risk to licence holders, given the fishery spans the Australian Fishing Zone west of Victoria and the Torres Strait. The Fishery is not currently active and no fishing has occurred since 2009 (Patterson et al., 2022). In addition, interactions are not expected given the species' pelagic distribution fishing methods for species fished by licence holders) of the Environment Regulations.</p>	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Western Tuna and Billfish Fishery	Commonwealth commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. Although the fishery overlaps the Operational Area and EMBA, it has not been active in the Operational Area or EMBA within the last 5 years.	No
Commonwealth Fisheries Association (CFA)	Represents the interests of commercial fishers with licences in Commonwealth waters	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA. CFA's functions may be relevant to the activity as the North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery are active in the EMBA.	Yes
Australian Southern Bluefin Tuna Industry Association (ASBTIA)	Represents the interests of the Southern Bluefin Tuna Fishery and Western Skipjack Fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The Southern Bluefin Tuna Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the Southern Bluefin Tuna Fishery, the ASBTIA has also been assessed as not relevant. Woodside has provided information to the ASBTIA at its discretion in line with <b>Section 5.3.4</b> on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations. Woodside chose to contact ASBTIA at its discretion in line with <b>Section 5.3.7</b> of the EP.	No
Tuna Australia	Represents the interests of the Western Tuna and Billfish Fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The Western Tuna and Billfish Fishery has been assessed as not relevant to the proposed activity. As the peak representative body for the Western Tuna and Billfish Fishery, Tuna Australia has also been assessed as not relevant.	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Woodside has provided information to Tuna Australia at its discretion in line with <b>Section 5.3.4</b> on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.</p> <p>Woodside chose to contact Tuna Australia at its discretion in line with <b>Section 5.3.7</b> of the EP.</p>	
Pearl Producers Association (PPA)	Peak representative organisation of The Australian South Sea Pearling Industry, with members in Western Australia and the Northern Territory	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Pearl Oyster Managed Fishery has been assessed as not relevant to the proposed activity.</p> <p>As the peak representative body for the Pearl Oyster Managed Fishery, the PPA has also been assessed as not relevant.</p>	No
<b>State Commercial fisheries and representative bodies</b>			
Marine Aquarium Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.</p>	Yes
South West Coast Salmon Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area and EMBA, the fishery has not been active in the Operational Area or EMBA within the last 5 years.</p> <p>Woodside does not consider that the activity will present a risk to licence holders, given fishers are active south of Perth and from the beach (previous WAFIC advice). Further, no fishing occurs north of the Perth Metropolitan Area and therefore, no effort occurs within the Operational Area or EMBA.</p>	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Mackerel Managed Fishery (Area 2)	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Area 2 of the fishery overlaps the Operational Area and has been active in the Operational Area within the last 5 year.</p> <p>Area 2 and 3 of the fishery overlap the EMBA, but only Area 2 of the fishery has been active in the EMBA within the last 5 years.</p>	Yes
Pilbara Crab Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery has been active in the EMBA within the last 5 years.</p>	Yes
West Coast Deep Sea Crustacean Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery has been active in the EMBA within the last 5 years.</p>	Yes
Specimen Shell Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery has been active in the EMBA within the last 5 years.</p>	Yes
Abalone Managed Fishery	State commercial fishery	<p>Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Although the fishery overlaps the Operational Area and EMBA, it has not been active in the Operational Area or EMBA within the last 5 years.</p>	No

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		Woodside does not consider that the activity will present a risk to licence holders given it is a dive and wade fishery with activities generally restricted to waters less than 40 m deep (DOF, 2011).	
Pearl Oyster Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  Although the fishery overlaps the Operational Area and EMBA, it has not been active in the Operational Area or EMBA within the last 5 years.  Woodside does not consider that the activity will present a risk to licence holders given fishing methods and location for species fished by licence holders (fishing effort is mostly focussed in shallow coastal waters of 10-15 m depth, with a maximum depth of 35 m) (Lulofs et al. 2002).	No
Land Hermit Crab Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.	Yes
Onslow Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes
Western Australian Sea Cucumber Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  Although the fishery overlaps the Operational Area, it has not been active in the Operational Area within the last 5 years. The fishery overlaps the EMBA and has been active in the EMBA within the last 5 years.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Exmouth Gulf Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.	Yes
West Coast Rock Lobster Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has not been active in the EMBA within the last 5 years.	No
Nickol Bay Prawn Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery does not overlap the Operational Area. The fishery overlaps EMBA and has been active in the EMBA within the last 5 years.	Yes
WA North Coast Shark Managed Fishery	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. Although the fishery overlaps the Operational Area and EMBA, the fishery has not been active in the Operational Area or EMBA within the last 5 years. The fishery has not been an active fishery since 2008/09 (DPIRD).	No
Demersal Scalefish Fishery:	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery overlaps the Operational Area and EMBA and has been active in the Operational Area and EMBA within the last 5 years	Yes
<ul style="list-style-type: none"> <li>• Pilbara Trawl Fishery</li> </ul>	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.	Yes
<ul style="list-style-type: none"> <li>• Pilbara Trap Fishery</li> </ul>	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
<ul style="list-style-type: none"> <li>Pilbara Line Fishery</li> </ul>		The fishery overlaps the Operational Area and EMBA and has been active in the Operational Area and EMBA within the last 5 years	
	State commercial fishery	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations. The fishery overlaps the Operational Area and EMBA and has been active in the Operational Area and EMBA within the last 5 years	Yes
Western Australian Fishing Industry Council (WAFIC)	Represents the interests of commercial fishers with licences in State waters.	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  The Mackerel Managed Fishery (Area 2), , , Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery have been active in the Operational Area within the last 5 years.  The Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, and Nickol Bay Prawn Managed Fishery have been active in the EMBA within the last 5 years.  WAFIC's functions may be relevant to the activity as the peak representative body for State fisheries.  Woodside acknowledges WAFIC's consultation guidance and has applied this by consulting fisheries that are assessed as having a potential for interaction in the Operational Area directly and consulting fisheries assessed as having a potential for interaction in the EMBA via WAFIC.	Yes
Western Rock Lobster Council	Represents the interests of the Western Rock Lobster Managed Fishery.	Woodside has applied its methodology for 'Commercial fisheries (Commonwealth and State) and peak representative bodies' under regulation 25(1)(d) of the Environment Regulations.  The Western Rock Lobster Managed Fishery is not active within the EMBA.	No

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<b>Recreational marine users and representative bodies</b>			
Exmouth Recreational Marine Users	Exmouth-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Andro Maritime Services Australia, Aquatic Adventure Exmouth, Birds Eye View, Blue Horizon Charters, Blue Lightning Charters,</p> <p>Cape Immersion Tours, Coastal Adventure Tours, Coral Bay Ecotours, Cruise Ningaloo, Dampier Island Tourism, Dive Ningaloo, Evolution Fishing Charters, Exmouth Adventure Co., Exmouth Dive Centre, Exmouth Fly Fishing, Exmouth Game Fishing Club, Indian Chief Charters, Innkeeper Sport Fishing Charter, Kings Ningaloo Reef Tours, Live Ningaloo, Mahi Fishing Charters, Montebello Island Safaris, Ningaloo Aviation, Ningaloo Blue, Ningaloo Coral Bay Boats, Ningaloo Discovery, Ningaloo Ecology Cruises, Ningaloo Fly Fishing, Ningaloo Marine Interaction, Ningaloo Reef Dive, Ningaloo Reef to Range Tours, Ningaloo Safari Tours, Ningaloo Sportfishing Charters, Ningaloo Whaleshark n Dive, Ningaloo Whaleshark Swim, Ocean Eco Adventures, On Strike Charters, Peak Sportfishing Charters, Pelican Charters, Sail Ningaloo, Sea Force Charters, Set the Hook, The Mobile Observatory, Three Islands, Top Gun Charters, Ultimate WaterSports, Venture Ningaloo, View Ningaloo, Warrior Princess Charters, Yardi Creek Boat Tours.</p> <p>Activities have the potential to impact Exmouth-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Gascoyne Recreational Marine Users	Gascoyne-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Silverado Charters Pty Ltd, Reel Force Charters Pty Ltd, D &amp; N Nominees Pty Ltd, Lyons Family Super Pty Ltd, Seafresh Holdings Pty Ltd, Eco-Abrolhos Pty Ltd, C Emery Fishing Pty Ltd, On Strike Charters (Wa) Pty Ltd, Melkit Pty Ltd, Maritime Engineering Services Pty Ltd, G. C. Bass Nominees Pty Ltd,</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Brefjen Nominees Pty Ltd, W.A Maritime Investments Pty Ltd, Blue Juice Tours Pty Ltd, Surefire Marine Services Pty Ltd, Makalee Pty Ltd, L &amp; S Family Holdings Pty Ltd, Bondall Pty Ltd, Kw Marine Pty Ltd, Sharkbay Charters Pty Ltd, Bluecity Enterprises Pty Ltd, Jostan Holdings Pty Ltd, Monkey Mia Yacht Charters Pty Ltd, On Strike Charters (Wa) Pty Ltd, Rainfield Pty Ltd, Monster Sportfishing Adventures Pty Ltd, Lulamanzi Investments Pty Ltd, Millennial Charters Pty Ltd, Chapel Nominees Pty Ltd, Regalchoice Holdings Pty Ltd, Fawesome Expeditions Pty Ltd, On Strike Charters (Wa) Pty Ltd, The Great Escape Charter Company Pty Ltd, Aoa International Pty Ltd, Fire Tiger Pty Ltd.</p> <p>Activities have the potential to impact Gascoyne-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	
Pilbara/Kimberley Recreational Marine Users	Pilbara/Kimberley-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Willie Creek Pearl Farm Pty Ltd, Super Yachts Perth Pty Ltd, Silverado Charters Pty Ltd, Bloor Street Investments Pty Ltd, Lugger Enterprises Pty Ltd, Eco-Abrolhos Pty Ltd, C Emery Fishing Pty Ltd, Discovery Holiday Parks Pty Limited, Kimberley Marine Pty Ltd, Coral Princess Cruises (Nq) Pty Ltd, Marine Agents Australia Pty Ltd, Maritime Engineering Services Pty Ltd, G. C. Bass Nominees Pty Ltd, Coastway Investments Pty Ltd, Kcc Group Pty Ltd, Cm Ventures Pty Ltd, Lombadina Aboriginal Corporation, Australian Port And Marine Services Pty Ltd, Hartley Motorcycles Pty Ltd, Humbug Fishing Pty Ltd, Brefjen Nominees Pty Ltd, Melkit Pty Ltd, W.A Maritime Investments Pty Ltd, Blue Juice Tours Pty Ltd, Kw Marine Pty Ltd, L &amp; S Family Holdings Pty Ltd, Bondall Pty Ltd, Lake Argyle Cruises Pty Ltd, Sealife Charters Pty Ltd, Mal Miles Adventures Pty Ltd, Mackerel Islands Pty Ltd, Diversity Charter Company Wa Pty Ltd, Split Tide Pty Ltd, Broome Tours Pty Ltd, North Star Cruises Australia Pty Ltd, Charter Express Pty Ltd, Sea 2 Pty Ltd, Hotel And Resort Investments Pty Ltd, L &amp; S Family Holdings Pty Ltd, Down The Line Charters Pty Ltd, Kingfisher Island Resort Pty Ltd, Rstg Pty Limited, Sealife Charters Pty Ltd, Coral Princess Cruises (Nq) Pty Ltd, Kimberley Quest</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Adventures Pty Ltd, Monster Sportfishing Adventures Pty Ltd, Ocean Charters Pty Ltd, Lulamanzi Investments Pty Ltd, Millennial Charters Pty Ltd, Chapel Nominees Pty Ltd, Fawesome Expeditions Pty Ltd, The Great Escape Charter Company Pty Ltd, Aoa International Pty Ltd, Kimberley Getaway Cruises Pty Ltd, King Sound Resort Hotel Pty.</p> <p>Activities have the potential to impact Pilbara/Kimberley-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	
Karratha Recreational Marine Users	Karratha-based dive, tourism and charter operators	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Nickol Bay Sport Fishing Club, Archipelago Adventures, Hampton Harbour Boat &amp; Sailing Club, King Bay Game Fishing Club, Marine Rescue Dampier, Port Walcott Volunteer Marine Rescue, Port Walcott Yacht Club, Reef Seeker Charters, West Pilbara Volunteer Sea Search and Rescue Group.</p> <p>Activities have the potential to impact Karratha-based dive, tourism and charter operator's functions, interests or activities due to the location of activities and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Recfishwest	Represents the interests of recreational fishers in WA.	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Activities have the potential to impact recreational fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.</p>	Yes
Marine Tourism WA	Represents the interests of marine tourism in WA.	<p>Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.</p>	Yes

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		Activities have the potential to impact recreational fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.	
WA Game Fishing Association	Represents the interests of game fishers in WA.	Woodside has applied its methodology for 'Recreational marine users and representative bodies' under regulation 25(1)(d) of the Environment Regulations.  Activities have the potential to impact game fishers' functions, interests or activities due to the location offshore and there has been recorded charter effort in the EMBA in the past 5 years.	Yes
<b>Titleholders and Operators</b>			
Chevron Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
BP Developments Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Carnarvon Energy	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Eni Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Finder No 9 /16	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Jadestone	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations).	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Titleholder or Operator's permit areas overlaps the EMBA.	
KUFPEC Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Santos NA Energy Holdings / Santos WA Northwest / Santos Offshore / Santos Ltd / Santos (BOL) / Santos WA PVG	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
OMV Australia / Sapura OMV Upstream	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
KATO Energy / KATO Corowa / KATO NWS / KATO Amulet	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Osaka Gas Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Tokyo Gas Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
JERA Gorgon	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
PE Wheatstone	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Kyushu Electric Wheatstone	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Vermillion Oil and Gas Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Exxon Mobil Australia Resources Company	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
JX Nippon Oil and Gas Operations	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Shell Australia	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Longreach Capital Investments / Beagle No. 1 Pty Ltd	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
Fugro Exploration	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
INPEX Alpha Ltd	Titleholder or Operator	Woodside has applied its methodology for 'Titleholders and Operators' under regulation 25(1)(d) of the Environment Regulations. Titleholder or Operator's permit areas overlaps the EMBA.	Yes
<b>Peak Industry Representative bodies</b>			

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Australian Energy Producers (AEP) <i>(formerly APPEA)</i>	Represents the interests of oil and gas explorers and producers in Australia.	Woodside has applied its methodology for 'Peak Industry Representative bodies' under regulation 25(1)(d) of the Environment Regulations. AEP's responsibilities are identified as having an intersect with Woodside's planned activities in the EMBA.	Yes
<b>Traditional Custodians and nominated representative corporations</b>			
Murujuga Aboriginal Corporation (MAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The EMBA does not overlap and is not coastally adjacent to a native title claim, determination or ILUA held by MAC. The EMBA does not overlap the Murujuga National Park.</p> <p>MAC is the Nominated Representative Corporation under the Burrup and Maitland Industrial Estates Agreement (BMIEA), which is coastally adjacent to the EMBA. The EMBA does not overlap the Murujuga National Park.</p> <p>Under regulation 25(1)(e) of the Environment Regulations, Woodside, at its discretion, chose to assess MAC as a relevant person.</p> <p>MAC was established to represent the members of competing Native Title claims over Murujuga, collectively known as the Ngarda Ngarli and comprising Mardudhunera, Ngarluma, Yaburara, Yindjibarndi and Wong-Goo-Tt-Oo people. The determination of the competing Native Title claims resulted in no native title being found over the lands subject to the BMIEA or below the low water mark.</p> <p>MAC also owns and co-manages the Murujuga National Park, is responsible for the Dampier Archipelago National Heritage Place and is progressing the World Heritage nomination of the Murujuga Cultural Landscape.</p>	Yes
Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The EMBA overlaps the Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People native title claim/determination area, which the</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Baiyungu, Thalanyji and Yinggarda people are party to. The NTGAC and YAC are the Registered Native Title Body Corporates holding native title on behalf of the Baiyungu, Thalanyji and Yinggarda people.</p> <p>The NTGAC's nominated representative is the Yamatji Marlpa Aboriginal Corporation (YMAC) and the NTGAC executive officer and contact officer pursuant to the Corporations (Aboriginal and Torres Strait Islander) Act 2006 is employed by YMAC. Woodside has therefore consulted the NTGAC, via YMAC.</p>	
Buurabalayji Thalanyji Aboriginal Corporation (BTAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Thalanyji native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, which BTAC is the Registered Native Title Body Corporate for.</p> <p>BTAC is also party to the Macedon ILUA which is coastally adjacent to the EMBA.</p>	Yes
Yinggarda Aboriginal Corporation (YAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The EMBA overlaps the Gnulli, Gnulli #2 and Gnulli #3 - Yinggarda, Baiyungu and Thalanyji People native title claim/determination area, which the Baiyungu, Thalanyji and Yinggarda people are party to. The NTGAC and YAC are the Registered Native Title Body Corporates holding native title on behalf of the Baiyungu, Thalanyji and Yinggarda people.</p> <p>The Yinggarda Aboriginal Corporations nominated representative is Gumala Aboriginal Corporation.</p>	Yes
Kariyarra Aboriginal Corporation	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>The Kariyarra native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, which the Kariyarra Aboriginal Corporation is the Registered Native Title Body Corporate for.</p> <p>The Kariyarra Aboriginal Corporation <i>is also party to the</i> Kariyarra and State ILUA which is coastally adjacent to the EMBA.</p>	
Wirrawandi Aboriginal Corporation (WAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Yaburara &amp; Mardudhunera People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, which WAC is the Registered Native Title Body Corporate for.</p> <p>WAC is also party to the Cape Preston Project Deed (YM Mardie ILUA), Cape Preston West Export Facility and KM and YM ILUA, which are coastally adjacent to the EMBA.</p>	Yes
Robe River Kuruma Aboriginal Corporation	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Robe River Kuruma Aboriginal Corporation is party to the KM and YM ILUA and RTIO Kuruma Mathudunera People ILUA which are coastally adjacent to the EMBA.</p>	Yes
Ngarluma Aboriginal Corporation (NAC)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Ngarluma/Yindjibarndi People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, which NAC and the Yindjibarndi Aboriginal Corporation are the Registered Native Title Body Corporates for.</p> <p>NAC is also party to the Anketell Port, Infrastructure Corridor and Industrial Estates Agreement and RTIO Ngarluma ILUA (Body Corporate Agreement) which are coastally adjacent to the EMBA.</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Yindjibarndi Aboriginal Corporation	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and nominated representative corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Ngarluma/Yindjibarndi People native title claim does not overlap the EMBA. The claim is coastally adjacent to the EMBA, which NAC and the Yindjibarndi Aboriginal Corporation are the Registered Native Title Body Corporates for.</p>	Yes
<b>Native Title Representative Bodies</b>			
Yamatji Marlpa Aboriginal Corporation (YMAC)	Native Title Representative Body	<p>Woodside has applied its methodology for 'Native Title Representative Bodies' under regulation 25(1)(d) of the Environment Regulations.</p> <p>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.</p> <p>The NTGAC's nominated representative is YMAC. Woodside has therefore consulted the NTGAC via YMAC.</p> <p>Woodside contacted YMAC to seek guidance with respect to the appropriate Traditional Custodian group(s) to engage with respect to the proposed activity where this was not clear.</p> <p>YMAC's functions may be relevant to the proposed activity in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation.</p>	Yes
<b>Self-identified First Nations Groups</b>			
Ngarluma Yindjibarndi Foundation Ltd (NYFL)	Representative Aboriginal Corporation	<p>Woodside has applied its methodology for 'Traditional Custodians and Nominated Representative Corporations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Ngarluma and Yindjibarndi People, the NWS JVs and Woodside entered into an agreement on 22 December 1998 (Agreement).</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>NYFL was subsequently incorporated under the terms of the Agreement to act as trustee for the trust established to benefit the Ngarluma and Yindjibarndi People and the Roebourne Aboriginal Community.</p> <p>Subsequent to that, the Ngarluma people settled their native title claim and established their nominated representative corporation, the Ngarluma Aboriginal Corporation (PBC); and the Yindjibarndi people settled their native title claim and established their nominated representative corporation, the Yindjibarndi Aboriginal Corporation (PBC). The Ngarluma Aboriginal Corporation and the Yindjibarndi Aboriginal Corporation are the appropriate representative bodies for consultation in relation to cultural interests.</p> <p>NYFL's functions may be relevant to the proposed activity in relation to its functions under the Agreement.</p>	
<b>Local government and community representative groups or organisations</b>			
Shire of Exmouth	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Exmouth, Learmonth and North West Cape.	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Shire of Exmouth's area of responsibility does not overlap the EMBA.</p> <p>Under regulation 251(e) of the Environment Regulations, Woodside, at its discretion, chose to assess the Shire of Exmouth as a relevant person.</p>	Yes
Shire of Ashburton	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Onslow, Pannawonica, Paraburdoo and Tom Price.	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The Shire of Ashburton's area of responsibility overlaps the EMBA.</p>	Yes
City of Karratha	Local government governed by the Local Government Act 1995 representing the suburbs and localities of Baynton, Baynton West, Bulgarra, Cossack, Dampier,	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The City of Karratha's area of responsibility overlaps the EMBA.</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
	Gap Ridge, Karratha, Karratha Industrial Estate, Jingarri, Madigan, Millars Well, Nickol, Pegs Creek, Point Samson, Roebourne, Whim Creek and Wickham.		
Exmouth Community Liaison Group (CLG)	The Exmouth CLG represents the interests of a range of local government, industry and community organisations in relation to oil and gas matters in the Exmouth region.	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Base Marine, Bgahwan Marine, Cape Conservation Group Inc., DBCA, Department of Defence, Department of Transport, Exmouth Bus Charter, Exmouth Chamber of Commerce and Industry, Exmouth District High School, Exmouth Freight and Logistics, Exmouth Game Fishing Club, Exmouth Tackle and Camping Supplies, Exmouth Visitors Centre, Exmouth Volunteer Marine Rescue, Fat Marine, Gascoyne Development Commission, Gun Marine Services, Ningaloo Lodge, Offshore Unlimited, Shire of Exmouth, BHP Petroleum, Santos, Community Member</p> <p>The Exmouth CLG's area of responsibility under its terms of reference overlaps the EMBA.</p>	Yes
Karratha Community Liaison Group	The KLG is the recognised community group that represents the interests of a range of local government, industry and community organisations in relation to oil and gas matters in the Pilbara region.	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>The KLG's area of responsibility under its terms of reference does not overlap the EMBA.</p> <p>WA Police, Karratha Health Care, Development WA, Ngarluma Yindjibarndi Foundation Ltd (NYFL), Department of Education, Pilbara Ports Authority, Regional Development Australia, Pilbara Development Commission, Dampier Community Association, City of Karratha, Karratha &amp; Districts Chamber of</p>	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		<p>Commerce and Industry, Horizon Power, Murujuga Aboriginal Corporation (MAC)*, Department of Local Government, Sport and Cultural Industries</p> <p><i>*NYFL and MAC were consulted directly as described above.</i></p> <p>Under regulation 25(1)(e) of the Environment Regulations, Woodside, at its discretion, chose to assess the KLG as a relevant person.</p>	
Onslow Chamber of Commerce and Industry	Independent not-for-profit organisation responsible for promoting the interests of its members in the business community in the town of Onslow and surrounding areas.	<p>Woodside has applied its methodology for 'Local government and community representative groups or organisations' under regulation 25(1)(d).</p> <p>The Onslow Chamber of Commerce and Industry's interests have the potential to be impacted by the proposed activities.</p>	Yes
<b>Other non-government groups or organisations</b>			
Australian Conservation Foundation (ACF)	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Woodside has assessed that ACF's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 5.2 of the EP).</p> <p>Woodside chose to contact ACF at its discretion in line with Section 5.3.7 of the EP.</p>	No
Australian Marine Conservation Society (AMCS)	Non-government organisation	<p>Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>Woodside has assessed that AMCS's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 5.2 of the EP).</p>	No

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
		Woodside chose to contact AMCS at its discretion in line with Section 5.3.7 of the EP.	
Conservation Council of Western Australia (CCWA)	Non-government organisation	Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 25(1)(d) of the Environment Regulations. Woodside has assessed that CCWA's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 5.2 of the EP). Woodside chose to contact CCWA at its discretion in line with Section 5.3.7 of the EP.	No
Greenpeace Australia Pacific (GAP)	Non-government organisation	Woodside has applied its methodology for 'Other non-government groups or organisations' under regulation 25(1)(d) of the Environment Regulations. Woodside has assessed that GAP's public website material does not demonstrate an interest with the potential risks and impacts associated with planned activities in accordance with the intended outcome of consultation (as set out in Section 5.2 of the EP). Woodside chose to contact GAP at its discretion in line with Section 5.3.7 of the EP.	No
<b>Research institutes and local conservation groups or organisations</b>			
Cape Conservation Group (CCG)	Local conservation group focused on protecting the terrestrial and marine environment of the North West Cape	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations. CCG's conservation activities have the potential to intersect with the EMBA as the EMBA overlaps North West Cape.	Yes
Protect Ningaloo	Local conservation group focused on protecting the Exmouth Gulf and Ningaloo Reef and Cape Range	Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations. Protect Ningaloo's conservation activities have the potential to intersect with the EMBA as the EMBA overlaps North West Cape and Ningaloo Reef.	Yes

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
University of Western Australia (UWA)	Research institute	<p>Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>There is no known research being undertaken by the UWA that intersects within the EMBA.</p> <p>Woodside chose to contact UWA at its discretion in line with Section 5.3.7 of the EP.</p>	No
Western Australian Marine Science Institution (WAMSI)	Research institute	<p>Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>There is no known research being undertaken by WAMSI that intersects within the EMBA.</p> <p>Woodside chose to contact WAMSI at its discretion in line with Section 5.3.7 of the EP.</p>	No
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Research institute	<p>Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>There is no known research being undertaken by CSIRO that intersects within the EMBA.</p> <p>Woodside chose to contact CSIRO at its discretion in line with Section 5.3.7 of the EP.</p>	No
Australian Institute of Marine Science (AIMS)	Research institute	<p>Woodside has applied its methodology for 'Research institutes and local conservation groups or organisations' under regulation 25(1)(d) of the Environment Regulations.</p> <p>There is no known research being undertaken by the AIMS that intersects within the EMBA.</p> <p>Woodside chose to contact AIMS at its discretion in line with Section 5.3.7 of the EP.</p>	No
<b>Other</b>			

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Person or Organisation	Summary of responsibilities and/or functions, interests or activities	Assessment of relevance	Relevant person
Save our Songlines (SOS) and/ or individuals [name redacted] and/ or [name redacted]	Representatives of Non-Government Organisation Save our Songlines and/ or individuals [name redacted] and/ or [name redacted]	<p>Woodside has applied its methodology for ‘Traditional Custodians and nominated representative corporations’ and ‘Other non-government groups or organisations’ under regulation 25(1)(d) of the Environment Regulations to determine Save Our Songlines (SOS) and/ or [name redacted] and/ or [name redacted] relevance for the proposed activity.</p> <p>Save Our Songlines and/ or [name redacted] and/ or [name redacted] stated interest is to stop or pause Scarborough gas and to stop new industry on the Burrup; and oppose planned expansion of the Burrup Hub industry by Woodside, Perdaman and Yara. In addition, their stated interests also include the protection of Murujuga rock art. This scope of the activity under this EP does not fall within their stated interests (see Section 6.4).</p> <p>Save Our Songlines and/ or [name redacted] and/ or [name redacted] have not identified for this activity despite opportunity to do so.</p>	No
National Energy Resource Australia (NERA)	Not-for-profit organisation that works with partners in government, research, science and industry to help decarbonise Australia's energy sector.	Woodside has applied its methodology for ‘Peak Industry Representative bodies’ under regulation 25(1)(d) of the Environment Regulations NERA’s responsibilities are identified as having an intersect with Woodside’s planned activities in the EMBA.	No

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## CONSULTATION ACTIVITIES

### GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Activities

Woodside has been conducting extensive consultation with relevant persons and other parties for this EP since April 2023 when consultation commenced with interested and affected stakeholders as part of a planned, integrated and consistent approach to stakeholder engagement for Woodside’s proposed opportunities. A broad consultation process has been undertaken with relevant persons for the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP. Consultation aims to be inclusive, transparent, voluntary, respectful and two-way. Consultation was undertaken by email, letter, phone call and/or meeting.

- Woodside advertised the planned activities proposed for this EP in national, state and relevant local newspapers including The Australian, The West Australian, Pilbara News, Midwest Times and North West Telegraph on 26 April 2023 (see **Record of Consultation, reference 2.49**). Regional newspapers do not require subscription and are available (and in some cases delivered) directly to households. All communities within or adjacent to the EMBA had access to this information via this media. No direct comments or feedback were received from the advertisements.
- A Consultation Information Sheet was provided to relevant persons and persons Woodside chose to contact (see **Section 5.3.4** of the EP), which included details such as an activity overview, maps, a summary of key risks and/or impacts and management measures (**Record of Consultation, reference 1.1**).
- Since the commencement of the initial consultation period (April 2023), the stakeholder Consultation Information Sheet has been available on Woodside’s website (**Record of Consultation, reference 1.1**). The Woodside Consultation Information Sheets include a toll-free 1800 phone number and Woodside’s feedback email address ([feedback@woodside.com.au](mailto:feedback@woodside.com.au)).
- Additional targeted information was provided to relevant marine users including AHO and AMSA – Marine Safety (**Record of Consultation, reference 2.3**). This information included maps and additional information relevant to the specific category of persons. The relevant persons had a 30-day period in which to provide feedback.
- Where appropriate, Woodside conducted phone calls and meetings with relevant persons.
- Where appropriate, targeted follow-up emails were sent to relevant persons who had not provided a response prior to the close of the target feedback period.
- Woodside considered relevant person responses and assessed the merits and relevance of objections and claims about the potential adverse impact of the proposed activity set out in the EP, in accordance with the intended outcome of consultation (see **Section 5.2** of the EP).
- Consultation activities undertaken with relevant persons are summarised at **Table 2**.
- Engagement undertaken with persons or organisations Woodside assessed as not relevant but chose to contact (see **Section 5.3.4** of the EP) or self-identified and Woodside assessed as not relevant are summarised at **Table 3**.
- From May to September 2023, Woodside commenced geotargeted sponsored social media campaigns (**Record of Consultation, reference 3.40**) to various local government authorities within or coastally adjacent to the EMBA for the proposed activities. The campaign brought the proposed activity to the attention of persons who may be interested and advised persons or organisations on how they can find out about Woodside’s proposed activities by visiting Woodside’s website.

Platform	Geotargeted Reach	Post Dates	Impact
Facebook	<b>Regional:</b> Users 18+ located within 80kms of Carnarvon, Denham, Exmouth, Onslow, Port Hedland, and Karratha	22 August 2023 – 11 September 2023	<b>Reach:</b> 240,329 <b>Frequency:</b> 3.02 <b>Impressions:</b> 726,563 <b>Clicks:</b> 1941 <b>Click Through Rates%:</b> 0.27%
Instagram	<b>Regional:</b> Users 18+ located within 80kms of Carnarvon, Denham, Exmouth, Onslow, Port Hedland, and Karratha	22 August 2023 – 11 September 2023	<b>Reach:</b> 114,372 <b>Frequency:</b> 2.53 <b>Impressions:</b> 288,810 <b>Clicks:</b> 257 <b>Click Through Rates%:</b> 0.09%

- From June 2023, Woodside held a number of Community Information Sessions where this EP’s Consultation Information Sheets were available and discussed. See tables in **Record of Consultation, reference 3.41.1, 3.41.2, 3.41.3, 3.41.4, 3.41.5, 3.41.6, 3.42 and 3.43.**

Date (2023)	Location	Event (if applicable)
17 June	Exmouth	PHI Helicopters Community Open Day
22 June	Roebourne	
28 and 29 June	Karratha	
19 July	Roebourne	
5 and 6 August	Karratha	FeNaCING
18 August	Onslow	Passion of the Pilbara Festival
18, 19 and 20 September	Karratha, Port Hedland and Roebourne	Community Consultation Roadshow
10 and 11 October	Karratha	Pilbara Summit 2023
16 and 17 October	Carnarvon and Denham	Community Consultation Roadshow
23 October	Exmouth	Community Consultation Roadshow

### Traditional Custodian Specific Consultation

In addition to the approaches above including community information sessions, additional activities were undertaken with relevant Traditional Custodians, which were specifically designed to provide for effective engagement with Traditional Custodians and so that information was provided in a form that was readily accessible and appropriate (**Section 5.5**). Consultation undertaken specifically with Traditional Custodians for this Environment Plan includes:

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- Direct engagement with nominated representative bodies via the contact listed on the ORIC website, requesting advice on how they would like to be engaged and asking whether other members and/or individuals should be consulted. This has resulted in:
  - Meetings with directors, elders and any nominated representatives, on country or in Perth
  - Requests and offers of resourcing to enable and support consultation
  - Exchange of written feedback and correspondence
  - Summary Consultation Information Sheet, developed and reviewed by Indigenous representatives in collaboration with technical experts to ensure content is appropriate to the intended recipients, was provided to relevant Traditional Custodian groups (**Record of Consultation, reference 3.1**) and phone calls to provide context to the consultation made.
- Ongoing efforts were made to engage and develop relationships with these bodies via a variety of means such as email, phone calls, alternative contacts, texts, social media and in some cases physical visits.
- Consultation meetings with attendees decided by Traditional Custodian groups, supported by senior Woodside representatives, subject matter experts, First Nations Relations advisers with skills and experience in community engagement. Meetings are developed through a two-way consultation process to ensure effective information sharing via:
  - Mutually agreed agenda avoiding time pressure
  - Encouraging Traditional Custodian attendees to control the pace of the meeting and pause at any time to ask questions, seek clarification or provide feedback
  - Visual aids such as posters, presentations, simplified technical videos and real-world pictures and footage
  - Emphasis on potential planned and unplanned risks and impacts of the activity
  - Ample opportunity for questions and feedback
  - Discussion about ongoing relationship development and opportunities
  - Distribution of hard-copy Consultation Information Sheets (**Record of Consultation, reference 1.1**) and Summary Consultation Information Sheets (**Record of Consultation, reference 3.1**)
  - Meeting all costs such as sitting fees, travel, legal support and executive support and other support required.
- Woodside has a geotargeted sponsored social media campaign (**Record of Consultation, reference 3.40**) to various communities that are coastally adjacent to the EMBA for the proposed activities.
  - The wide-reaching campaign brought the proposed activity to the attention of persons who may be interested and advised persons or organisations how they can find out about Woodside’s proposed activities by visiting Woodside’s website, which details the intent of consultation with relevant persons under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth). The campaign reached around 106,500 people and was viewed close to a million times to date across various regions as shown in **Record of Consultation, reference 3.40**.
  - These social media posts were developed with input from Indigenous representatives. Social media is a highly effective means to engage Indigenous audiences as outlined in Indigenous Digital Life (Professor Carlson, 2021). Advertisements used language and information appropriate to Indigenous audiences. Feedback from community engagements indicates a high level of penetration for this technique.

Woodside has employed a diverse range of techniques to allow relevant persons to become aware of the proposed activity and how it may affect their functions, activities or interests, and to understand their ability to provide feedback. The combination of PBC engagement meetings, traditional print media, social media and face-to face community interaction was designed with input from Indigenous representatives and adapted to the audience, so that it provides a wide-ranging opportunity to consult.

**Table 2: Consultation Report with Relevant Persons or Organisations**

Commonwealth and WA State Government Departments or Agencies – Marine		
<b>Australian Border Force (ABF)</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with ABF for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Australian Border Force on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Australian Border Force with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside emailed ABF advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.</li> <li>• On 12 May 2023, Woodside emailed ABF advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	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.
<b>Australian Fisheries Management Authority (AFMA)</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with AFMA for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p>		

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Australian Fisheries Management Authority on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Australian Fisheries Management Authority with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed AFMA advising of the proposed activity (Record of Consultation, reference 2.2) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed AFMA advising of an update to the proposed activity (Record of Consultation, reference 3.3) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- **(1)** On 25 May 2023, AFMA emailed Woodside advising they had no specific comments on the proposal and noted, if Woodside had not already done so, to engage directly with relevant fishing stakeholders, including CFA and the Northern Prawn Fishery, to determine any direct impacts or concerns they may have with the proposal.
- On 9 June 2023, Woodside replied to AFMA thanking them for its feedback and confirming that Woodside had provided consultation information to the CFA. Woodside noted however, with respect to AFMA’s advice that Woodside should provide consultation information to Northern Prawn Fishery, that the management area is 1,202 km from the GWA GTGP EMBA. Woodside advised it does not consider there to be a potential for interaction with the fishery and has not consulted it.
- **(2)** On 9 June 2023, AFMA advised that there is cross over between concession holders in the Northern Prawn Fishery and the Northwest Slope Trawl Fishery, and noted the CFA will also alert them of the work so should be ok.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> AFMA has requested Woodside consult with relevant fishing stakeholders, including CFA and the Northern Prawn Fishery.</p> <p><b>(2)</b> AFMA noted that there was cross over between concession holders in the Northern Prawn Fishery and the Northwest Slope Trawl Fishery, and the CFA will also alert them.</p>	<p><b>(1)</b> Woodside has addressed AFMA’s request to consult with Northern Prawn Fishery and noted that the management area is 1,202 km from the GWA GTGP EMBA. As such, Woodside advised it did not consider there to be a potential for interaction with the fishery and has not consulted it.</p> <p><b>(2)</b> Woodside has consulted AFMA, DAFF - Fisheries, CFA, and individual relevant licence holders.</p> <p>Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing</p>	<p><b>(1, 2)</b> Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10 of this EP.</p> <p><b>(1, 2)</b> Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following</p>

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<p>Whilst feedback has been received, there were no objections or claims.</p>	<p>consultation. Should further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p>completion of activities as referenced as PS 1.4 in this EP. . No additional measures or controls are required.</p>
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**Australian Hydrographic Office (AHO)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with AHO for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Australian Hydrographic Office on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has addressed and responded to the Australian Hydrographic Office over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed AHO advising of the proposed activity (Record of Consultation, reference 2.3) and provided a Consultation Information Sheet and shipping lanes map (Record of Consultation, reference 2.3.1).
- **(1)** On 1 May 2023, AHO emailed Woodside and acknowledged receipt of the data supplied and it will be updated in Navigational Charting products.
- On 12 May 2023, Woodside emailed AHO advising of an update to the proposed activity (Record of Consultation, reference 3.4) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D and shipping lanes map was provided (Record of Consultation, reference 3.3.1).
- **(1)** On 15 May 2023 AHO emailed Woodside and acknowledged receipt of the data supplied and it will be updated in Navigational Charting products.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> AHO acknowledged receipt of Woodside’s consultation email. Whilst feedback has been received, there were no objections or claims.</p>	<p><b>(1)</b> Woodside notes that AHO has acknowledged receipt of consultation information. Woodside engages in ongoing consultation throughout the life of an EP. Woodside notes that further feedback may be received as part of ongoing</p>	<p><b>(1)</b> Not required. Woodside will notify the AHO no less than four working weeks before operations</p>

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	<p>consultation. Should further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p>commence, as referenced as a <b>PS 4.3</b> in this EP.</p> <p>Woodside considers the measures and controls in the EP are appropriate. No additional measures or controls are required.</p>
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**Australian Maritime Safety Authority (AMSA) - Marine Safety**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with AMSA – Marine Safety for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Australian Maritime Safety Authority – Marine Safety on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Australian Maritime Safety Authority – Marine Safety over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed AMSA – Marine Safety advising of the proposed activity (Record of Consultation, reference 2.3) and provided a Consultation Information Sheet and shipping lanes map (Record of Consultation, reference 2.3.1).
- **(1)** On 3 May AMSA – Marine Safety emailed Woodside requesting for notifications to AMSA’s Response Centre (ARC) 24-48 hours before operations commence. AMSA also requested that AHO be contacted no less than four working weeks before operations commence.
- **(2)** On 8 May 2023, AMSA – Marine Safety emailed Woodside and requested that Woodside evaluate and implement adequate vessel anti-collision measures and that all vessels comply with the International Regulations for Preventing Collisions at Sea.
- On 12 May 2023, Woodside emailed AMSA – Marine Safety advising of an update to the proposed activity (Record of Consultation, reference 3.5) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D and shipping lanes map was provided (Record of Consultation, reference 3.3.1).
- **(3)** On 12 May 2023, AMSA – Marine Safety emailed Woodside and requested associated GIS shapefiles for all four proposed operational areas and the EMBA polygons.
- On 15 May 2023, AMSA – Marine Safety sent a follow up email to Woodside.

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- On 15 May 2023, Woodside emailed AMSA – Marine Safety and attached a copy of the GIS files for this EP.
- **(1) (2)** On 23 May 2023, AMSA – Marine Safety emailed Woodside with a reminder about notification requirements and vessel collision avoidance measures.
- On 26 May 2023, Woodside emailed AMSA – Marine Safety with revised shapefiles attached with an updated area for Operational Area D.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>AMSA – Marine Safety has provided feedback and requested that:</p> <p><b>(1)</b> AMSA’s Response Centre (ARC) be notified at least 24–48 hours before operations commence;</p> <p><b>(1)</b> the AHO be contacted no less than four working weeks before operations commence;</p> <p><b>(2)</b> Implement adequate anti-collision measures for vessels;</p> <p><b>(2)</b> that all vessels comply with the International Regulations for Preventing Collisions at Sea.</p> <p><b>(3)</b> GIS shape files for the proposed activities.</p>	<p><b>(1)</b> Woodside will contact/notify:</p> <ul style="list-style-type: none"> <li>• The AHO no less than 4 weeks before operations commence</li> <li>• AMSA’s ARC at least 24-48 hours before operations commence</li> <li>• Provide updates to both the AHO and AMSA on any changes.</li> </ul> <p><b>(2)</b> 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.</p> <p><b>(2)</b> Woodside does not propose to implement further anti-collision measures for the activity at this time but collision risk mitigation measures are constantly being evaluated and implemented.</p> <p><b>(3)</b> Woodside has addressed AMSA – Marine Safety’s requests and provided further information on the proposed activity including an operational area polygons in shapefile format, and the shipping lane figure for the Operational Areas and EMBA.</p> <p>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 further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p><b>(1)</b> Woodside will notify AMSA’s Response Centre (ARC) at least 24–48 hours before operations commence for each survey, as referenced as PS 4.5 in this EP.</p> <p><b>(1)</b> Woodside will notify the AHO no less than four working weeks before operations commence, as referenced as a PS 4.3 in this EP.</p> <p><b>(2)</b> The EP contains a number of controls that address AMSA’s feedback on lighting and compliance with the international rule for preventing collisions at sea, specifically safety zones are established (temporarily around the MODU and permanently around the facility), vessels are required to comply with marine orders and the facility’s collision prevention system will be implemented.</p> <p><b>(3)</b> Not required</p> <p>Woodside considers the measures and controls in the EP are appropriate.</p>

**Australian Maritime Safety Authority (AMSA) – Marine Pollution**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with AMSA – Marine Pollution for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.

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- Consultation Information provided to Australian Maritime Safety Authority (AMSA) – Marine Pollution on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Australian Maritime Safety Authority (AMSA) – Marine Pollution with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed AMSA advising of the proposed activity (Record of Consultation, reference 2.4) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed AMSA advising of an update to the proposed activity (Record of Consultation, reference 3.5) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet and shipping lanes map including Operational Area D was provided.
- On 21 June 2023, Woodside emailed AMSA inviting it to comment on the activity and provided a copy of the Oil Pollution First Strike Plan (Record of Consultation, reference 3.39).

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	Woodside has addressed oil pollution planning and response at Appendix H.  No additional measures or controls are required.

**Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DAFF – Fisheries for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Department of Agriculture, Fisheries and Forestry – Fisheries on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Department of Agriculture, Fisheries and Forestry over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed DAFF advising of the proposed activity (Record of Consultation, reference 2.5) and provided a Consultation Information Sheet.

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- **(1)** On 9 May 2023, DAFF emailed Woodside advising of the requirement to manage biosecurity risk to conveyances, drawing attention to the requirements under the Biosecurity Control Act 2015, and the mechanism for exemption under the Biosecurity (Exposed Conveyances – Exceptions from Biosecurity Control) Determination 2016. DAFF also outlined specified timeframes for pre-arrival reporting using the Maritime and Aircraft Reporting System (MARS), and for submission of the supplied "Questionnaire for Biosecurity Exemptions for Biosecurity Control Determination".
- On 12 May 2023, Woodside emailed DAFF advising of an update to the proposed activity (Record of Consultation, reference 3.6) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 23 August 2023, Woodside emailed DAFF responding to its correspondence on 9 May 2023. Woodside advised that it recognises the requirements notes the specified timeframes and for submission of the supplied questionnaire. Woodside also advised it will not be the operator of the survey vessels described in the EP.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> DAFF has provided feedback about biosecurity risk management, reporting and submission requirements.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p><b>(1)</b> Woodside has addressed DAFF’s feedback noting its requirements for biosecurity risk management and reporting and submission requirements.</p> <p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p><b>(1)</b> Vessels are required to comply with the <i>Australian Biosecurity Act 2015</i>, 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 (see Section 6.6.6 of the EP).</p> <p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP.</p>

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		No additional measures or controls are required.
<b>Department of Defence (DoD)</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DoD for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to the Department of Defence on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has addressed and responded to the Department of Agriculture, Fisheries and Forestry over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside emailed DoD advising of the proposed activity (Record of Consultation, reference 2.6) and provided a Consultation Information Sheet and defence zone map (Record of Consultation, reference 2.6.1).</li> <li>• On 12 May 2023, Woodside emailed DoD advising of an update to the proposed activity (Record of Consultation, reference 3.7) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet and defence zone map including Operational Area D was provided (Record of Consultation, reference 3.7.1).</li> <li>• On 1 June 2023, DoD emailed Woodside advising that:             <ul style="list-style-type: none"> <li>○ (1) The location of the activity areas within an exercise area and restricted airspace.</li> <li>○ (2) Unexploded ordnance (UXO) that may be present on and in the seafloor, and that Woodside must inform itself as to the risks associated with conducting activities in that area, with the Commonwealth of Australia taking no responsibility for reporting the UXO in the area, identifying or removing UXO from the area, or any loss or damage suffered or incurred by Woodside or any third party arising out of, or directly related to, UXO in the area.</li> <li>○ (3) DoD's notification requirements including liaison with the Australian Hydrographic Service/Office (AHS/AHO).</li> </ul> </li> <li>• On 6 September 2023, Woodside emailed DoD thanking them for their feedback.             <ul style="list-style-type: none"> <li>○ Woodside noted the DoD's advice on the location of the operational area being outside of any defence training areas.</li> <li>○ Woodside also noted the advice with respect to the location, identification, removal, or damage to equipment from unexploded ordinances (UXOs).</li> <li>○ Woodside confirmed it notes the requirement and contact details provided by the Department of Defence to engage with Australian Hydrographic Service for Notices to Mariners.</li> <li>○ Woodside has already engaged AHO for this activity and is included in Woodside's activity notification protocols. Woodside will notify the AHO four weeks prior to commencement of activities.</li> </ul> </li> </ul>		

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>DoD provided feedback on:</p> <p><b>(1)</b> The location of exercise areas and restricted airspace.</p> <p><b>(2)</b> The risk of unexploded ordnance (UXO) in the area.</p> <p><b>(3)</b> The need for Woodside to continue liaison with AHO and ensure AHO is notified three weeks prior to the actual commencement of activities.</p>	<p>Woodside assessed DoD’s feedback and confirmed:</p> <p><b>(1)</b> It had noted DoD’s advice on the location of activity areas within an exercise area and restricted airspace.</p> <p><b>(2)</b> It had noted the DoD’s advice with respect to the risk, location, identification, removal or damage from UXO.</p> <p><b>(3)</b> The AHS/AHO has been engaged by Woodside for these activities and is included in Woodside’s activity notification protocols.</p> <p>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 further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p><b>(1)</b> Not required.</p> <p><b>(2)</b> Not required.</p> <p><b>(3)</b> Woodside will notify the AHO no less than four working weeks before operations commence (where vessels will be in the Operational Area, but outside of the Petroleum Safety Zone &gt;3 weeks), as referenced as PS 1.9 in this EP.</p> <p>Notifying the AHO provides DoD with information of the PAP through maritime safety information.</p> <p>Woodside considers the measures and controls in the EP are appropriate. No additional measures or controls are required.</p>
<b>Department of Primary Industries and Regional Development (DPIRD)</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DPIRD for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Department of Primary Industries and Regional Development on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Department of Primary Industries and Regional Development with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside emailed DPIRD advising of the proposed activity (Record of Consultation, reference 2.7) and provided a Consultation Information Sheet</li> </ul>		

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<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed AFMA advising of an update to the proposed activity (Record of Consultation, reference 3.8) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Department of Transport (DoT)</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DoT for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Department of Transport on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has addressed and responded to the Department of Transport over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed DoT advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.</li> <li><b>(1)</b> On 1 May 2023, DoT responded and asked to be consulted if there any changes that may result in an increased risk of a spill impacting State waters from the proposed activities.</li> </ul>		

- On 12 May 2023, Woodside emailed DoT advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 12 May 2023, Woodside emailed DoT to confirm that DoT will be consulted if there is a risk of spill impacting State waters.
- On 21 June 2023, Woodside emailed DoT inviting it to comment on the activity and provided a copy of the Oil Pollution First Strike Plan (Record of Consultation, reference 3.38).
- **(2)** On 31 July 2023, DoT emailed Woodside to advise that it had reviewed the materials sent and it does not have any comment on the proposed activities.
- On 31 July 2023, Woodside emailed DoT thanking them for the confirmation email.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> DoT requested to be consulted if there is a risk of a spill impacting State waters from the proposed activities.</p> <p><b>(2)</b> DoT advised it has no comments on the proposed activities.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p><b>(1)</b> Woodside has addressed the DoT’s feedback, including confirming that if there is a risk of a spill impacting State waters, DoT will be consulted.</p> <p><b>(2)</b> Woodside notes that DoT has advised it has no comments on the proposed activities.</p> <p>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 7.2.5 of the EP).</p>	<p><b>(1)</b> Woodside will consult DoT if there is a spill impacting State water from the proposed activity, as referenced in the OSPRMA (Appendix H of the EP).</p> <p><b>(2)</b> Not required.</p> <p>No additional measures or controls are required.</p>

**Department of Planning, Lands and Heritage (DPLH)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DPLH for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to the Department of Planning, Lands and Heritage on 28 April 2023 based on their functions, interests or activities.

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Department of Planning, Lands and Heritage with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed DPLH advising of the proposed activity (Record of Consultation, reference 2.8) and provided a Consultation Information Sheet and list of state shipwrecks (Record of Consultation, reference 2.8.1).
- On 12 May 2023, Woodside emailed DPLH advising of an update to the proposed activity (Record of Consultation, reference 3.9) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided. There were no additional shipwrecks identified.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	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 to the values of any underwater heritage or shipwrecks as a result of planned activities (Section 4.9.1 of the EP). 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 a hydrocarbon spill, as demonstrated in Section 6.8.2 and Section 6.8.3 of the EP.  No additional measures or controls are required.

**Western Australian Museum**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Western Australian Museum for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Western Australian Museum on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Western Australian Museum over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to WA Museum advising of the proposed activity (Record of Consultation, reference 2.35) and provided a Consultation Information Sheet and a list of State Shipwrecks (Record of Consultation, reference 2.35.1)
- On 12 May 2023, Woodside emailed WA Museum advising of an update to the proposed activity (Record of Consultation, reference 3.24) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 25 May 2023, WA Museum emailed Woodside thanking Woodside for the information. WA Museum:
  - (1) Highlighted proponents are directed to the Commonwealth Government's Underwater Cultural heritage (UCH) Guidance for Offshore Developments.
  - (1) Advised Woodside to refer to the [draft] Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage.
  - (1) Advised Proponents proposing actions or developments in Australian Waters (as defined in the *Underwater Cultural Heritage Act 2018*) that are subject to Commonwealth planning approval must:
    - Not undertake activities that will have, or are likely to have, direct or indirect adverse impact on protected underwater cultural heritage (UCH) without a permit.
    - Observe the requirements of protected zones and obtain a permit to enter or operate in a protected zone if it is required.
    - (2) Notify regulators of the discovery of any suspected UCH identified during the planning, development, operation, or decommissioning phases of a project within 21 days of the discovery.
  - WA Museum advised that Woodside should:
    - contact the Commonwealth Regulator during project scoping and contact them to advise them of any proposed action or development within Australian Waters.
    - (3) Engage a suitably qualified and experienced maritime archaeologist to undertake a UCH Desktop Assessment for Aboriginal and non-Aboriginal UCH within the project area.
    - (4) Consult with Traditional Owners. If the project involves seabed disturbance in water shallower than 130 metres, the maritime archaeologist may advise proponents to undertake consultation with relevant Aboriginal Cultural Heritage services and Traditional Owners.
- On 6 September 2023, Woodside emailed WA Museum and thanked them for their feedback.
  - Woodside advised it is aware of the DCCEEW Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, and Underwater Cultural Heritage (UCH) Guidance for Offshore Developments.
  - Woodside confirmed that For the GWA GP/GT Environment Plan Woodside has engaged a qualified maritime archaeologist to complete a desktop review the potential for First Nations and non-First Nations UCH, including consideration of the ancient coastline to a depth of approximately 130m. Woodside will review and implement the maritime archaeologist's report recommendations as appropriate.

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- o Woodside confirmed that as per DCCEEW's Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, any suspected underwater cultural heritage sites identified during the archaeological review will be reported to the Australasian Underwater Cultural Heritage Database (AUCHD) within 21 days of the discovery.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>WA Museum provided feedback relating to:</p> <p><b>(1)</b> UCH Guidance and permitting.</p> <p><b>(1)</b> Requirements of protected zones and permitting.</p> <p><b>(2)</b> Notification to regulators upon discovery of any suspected UCH.</p> <p><b>(3)</b> UCH Desktop Assessment for Aboriginal and non-Aboriginal UCH within the project area.</p> <p><b>(4)</b> Consultation with Traditional Owners.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p>Woodside has addressed WA Museum's feedback by:</p> <p><b>(1,2)</b> Confirming its knowledge of the DCCEEW Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, an UCH Guidance for Offshore Developments.</p> <p><b>(3)</b> Woodside has engaged a qualified maritime archaeologist to complete a desktop review the potential for First Nations and non-First Nations UCH.</p> <p><b>(4)</b> Woodside confirmed reporting requirements for any suspected underwater cultural heritage sites identified during the archaeological review.</p> <p>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 7.2.5 of the EP).</p>	<p><b>(1)</b> Not required.</p> <p><b>(2, 3, 4)</b> 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 to the values of any underwater heritage or shipwrecks as a result of planned activities (Section 4.9.1 of the EP). 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 a hydrocarbon spill, as demonstrated in Section 6 of the EP.</p> <p>Woodside considers the measures and controls in the EP address Western Australian Museum's functions, interests or activities.</p> <p>No additional measures or controls are required.</p>

**Commonwealth and WA State Government Departments or Agencies – Environment**

**Department of Agriculture, Fisheries and Forestry (DAFF) – Biosecurity (marine pests, vessels, aircraft and personnel)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DAFF – Biosecurity for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to DAFF on 28 April 2023 based on their functions, interests or activities.

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- Woodside has addressed and responded to the DAFF over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed DAFF advising of the proposed activity (Record of Consultation, reference 2.5) and provided a Consultation Information Sheet.
- (1) On 9 May 2023, DAFF emailed Woodside and advised the requirement to manage biosecurity risk to domestic conveyances. DAFF provided specified timeframes for pre-arrival reporting using the Maritime and Aircraft Reporting System (MARS) and for submission of the supplied "Questionnaire for Biosecurity Exemptions for Biosecurity Control Determination".
- On 12 May 2023, Woodside emailed DAFF advising of an update to the proposed activity (Record of Consultation, reference 3.6) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 23 August 2023, Woodside emailed DAFF and confirmed it recognises the requirements to manage biosecurity risk and it notes the specified timeframes from DAFF. Woodside also advised that it will not be the operator of the survey vessels described in the EP.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) DAFF provided feedback relating to requirement to manage biosecurity risk and specified timeframes for pre arrival reporting.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside recognises the requirements to manage biosecurity risk and timeframes for reporting to DAFF.</p> <p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, and individual relevant licence holders.</p> <p>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 further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p>(1) Vessels are required to comply with the <i>Australian Biosecurity Act 2015</i>, 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 (see Section 6.6.6).</p> <p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be</p>

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		<p>directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
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**Department of Climate Change, Energy, the Environment and Water (DCCEEW)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DCCEEW for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to DCCEEW on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to DCCEEW over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed DCCEEW advising of the proposed activity (Record of Consultation, reference 2.9) and provided a Consultation Information Sheet and a list of Commonwealth shipwrecks (Record of Consultation, reference 2.9.1)
- On 12 May 2023, Woodside emailed DCCEEW advising of an update to the proposed activity (Record of Consultation, reference 3.10) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided. No additional shipwrecks were identified.
- On 24 May 2023, DCCEEW emailed Woodside to provide feedback on this EP and another EP.
  - **(1)** DCCEEW recommended that any proponent who is planning to undertake activities in the offshore environment should engage a suitably qualified and experienced maritime or underwater archaeologist for advice on how to mitigate risks associated with protected underwater cultural heritage (UCH).
  - **(2)** DCCEEW recommended undertaking a Desktop UCH Assessment to identify known and potential UCH resource in the environment that may be impacted by and activity and to propose a forward work program for additional UCH Impact Assessment if required. The department outlined the expected components of a detailed assessment program.
  - **(3)** The department requested that Woodside involve the Underwater Cultural Heritage team in its ongoing consultation processes in relation to activities that have the potential to impact UCH.

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- DCCEEW outlined a summary of relevant legislative requirements and additional considerations relevant to proponents.
- On 17 July 2023, Woodside emailed DCCEEW thanking the department for its feedback on the EPs.
  - Woodside confirmed it is aware of the legislative requirements of the *Underwater Cultural Heritage Act 2018* (Cth), as well as the Department of Climate Change, Energy, the Environment and Water’s (DCCEEW) Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, and Underwater Cultural Heritage (UCH) Guidance for Offshore Developments.
  - Woodside confirmed it has engaged a qualified and experienced maritime archaeologist to complete a desktop review of the potential for First Nations and non-First Nations UCH.
  - Woodside advised it consults with relevant Traditional Owners in the course of preparing Environment Plans, and also engages in ongoing consultation subsequent to the approval of Environment Plans.
  - Regarding DCCEEW’s note that DCCEEW acknowledges “the potential for First Nations cultural heritage remains to occur within Australian waters up to depths of approximately 130-140 meters.” Woodside commented that its understanding from studying existing literature, including relating to the discoveries referred to in DCCEEW’s feedback (e.g., in Benjamin et al., 2020), is that the potential for evidence of human occupation may extend to depths of 125 to 130m.
  - Woodside advised it has not reviewed documentary evidence confirming occupation of the continental shelf to depths of 140m. Consequently, as noted above, Woodside has instructed its maritime archaeologist to review the ancient coastline to a depth of approximately 130m (not 140m).
  - In line with DCCEEW’s request to be included in ongoing consultation processes, Woodside confirmed it would be willing to provide the UCH team with start and end of activity notifications for the EP.
  - Woodside confirmed that as outlined in DCCEEW’s Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, suspected underwater cultural heritage sites identified during the archaeological review will be reported to the Australasian Underwater Cultural Heritage Database (AUCHD) within 21 days of the discovery.
- On 19 July 2023, DCCEEW emailed Woodside and confirmed that the approach to risk mitigation and compliance with the UCH Act requirements Woodside has described aligns with the advice DCCEEW has provided. DCCEEW requested for Woodside to consult with its team as needed on these and other activities.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
DCCEEW provided feedback to Woodside on: <b>(1, 2)</b> Underwater cultural heritage risk mitigation, compliance with the UCH Act and UCH desktop assessment requirements. <b>(3)</b> Involving DCCEEW’s UCH team in the consultation process for activities that have the potential to impact UCH.	Woodside has addressed DCCEEW’s feedback by: <b>(1,2)</b> Confirming its knowledge of the DCCEEW Draft Guidelines for Working in the Near and Offshore Environment to Protect Underwater Cultural Heritage, an UCH Guidance for Offshore Developments. Woodside has engaged a qualified maritime archaeologist to complete a desktop review the potential for First Nations and non-First Nations UCH.	<b>(1,2)</b> The EP demonstrates that there are no known underwater heritage sites or shipwrecks within the Petroleum Activities Area and identifies that there are no credible impacts to the values of any underwater heritage or shipwrecks as a result of planned activities (Section 4.9.6 and Section 6.5). While impacts to underwater heritage sites or shipwrecks are possible in the event

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	<p>(3) Woodside confirmed it would be willing to provide the UCH team with start and end of activity notifications for the EP.</p> <p>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 7.2.5 of the EP).</p>	<p>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 6.6.1 of the EP.</p> <p>(3) Woodside has implemented a consultation program to advise relevant persons of the PAP and provide opportunity to raise objections or claims, as referenced as PS 1.8 in this EP.</p> <p>Woodside considers the measures and controls in the EP are appropriate.</p> <p>No additional measures or controls are required.</p>
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**Director of National Parks (DNP)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DNP for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Director of National Parks on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Director of National Parks over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed the DNP advising of the proposed activity (Record of Consultation, reference 2.10) and provided a Consultation Information Sheet and a list of Commonwealth shipwrecks (Record of Consultation, reference 2.10.1).
- On 12 May 2023, Woodside emailed DNP advising of an update to the proposed activity (Record of Consultation, reference 3.1) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 23 May 2023, DNP emailed Woodside:

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- DNP noted that the activity overlaps part of the Montebello Marine Park which forms part of the North-west Network of Marine Parks.
- **(1)** DNP requested that the EP addresses risk to cetaceans which display Biologically Important Behaviours in this area during times when the activities are proposed to occur. Particularly in relation to any equipment used within hearing range of cetaceans and the risk of vessel strikes.
- Additionally, impacts to marine turtles which display Biologically Important Behaviours in this area during times when the activities are proposed to occur.
- DNP noted that:
  - in accordance with the Management Plan, mining operations (excluding the construction and operation of pipelines) are not allowed in Habitat Protection Zones, Recreational Use Zones, National Park Zones or Sanctuary Zones.
  - The North-west Marine Parks Network Management Plan 2018 (management plan) came into effect on 1 July 2018 and provides further information on values for the Montebello Marine Park.
  - it has worked closely with NOPSEMA to develop and publish a guidance note and included link to the online document.
- The DNP noted that the EP should:
  - identify and manage all impacts and risks on Australian marine park values (including ecosystem values) to an acceptable level and consider all options to avoid or reduce them to as low as reasonably practicable.
  - clearly demonstrate that the activity will not be inconsistent with the management plan.
- **(2)** DNP asked to be made aware of oil/gas pollution incidences which occur within a marine park or are likely to impact on a marine park as soon as possible.
- **(2)** The DNP requested notification to be provided to the 24 hour Marine Compliance Duty Officer and should include:
  - titleholder details
  - time and location of the incident (including name of marine park likely to be affected)
  - proposed response arrangements as per the Oil Pollution Emergency Plan (e.g., dispersant, containment, etc.)
  - confirmation of providing access to relevant monitoring and evaluation reports when available; and
  - contact details for the response coordinator.
- The DNP noted it may request daily or weekly Situation Reports, depending on the scale and severity of the pollution incident.
- **(3)** DNP requested a notification if the EP is approved by NOPSEMA and at least 10 days prior to activities commencing within the marine park (excluding transiting) and at the conclusion of the activities.

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- On 23 May 2023, DNP sent an additional email to advise that the information provided is also applicable to the updated operational area D.
- On 26 May 2023, Woodside emailed DNP and thanked them for their feedback on the EP. Woodside sought a meeting with DNP to primarily discuss another EP.
- On 16 June 2023, Woodside met with DNP to provide a briefing on another Goodwyn EP. Woodside also provided an overview of the activities in this EP. DNP advised Woodside during the meeting that they had no further comments on the proposed activities to those provided via email on 23 May 2023.
- On 6 September 2023, Woodside emailed DNP thanking them for their feedback on the EP.
  - Woodside advised it recognises that the proposed activity overlaps part of the Montebello Marine Park which forms part of the North-west Network of Marine Parks and is aware of its obligations under the class approval (including conditions).
  - The Montebello is Multi use, and no activities are planned to occur in Habitat Protection Zones, Recreational Use Zones, National Park Zones or Sanctuary Zones.
  - Woodside advised the EP assesses potential impacts and risks to both cetaceans and turtles from noise emissions as well as the potential for vessel strikes. This impact assessment determined that the impacts of noise emissions and potential risk of vessel strikes is unlikely to result in a consequence greater than slight short-term disruption to individuals and has been reduced to as low as reasonably practicable.
  - In the development of the EP Woodside has considered the values for the Montebello Marine Park to demonstrate that the impacts and risks on the marine park values are reduced to as low as reasonably practicable, are of an acceptable level and are not inconsistent with the North-west Marine Parks Network Management Plan 2018.
  - Woodside confirmed that it will contact the DNP if details regarding the activity change and result in a new impact to a marine park.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>DNP responded and:</p> <p><b>(1)</b> confirmed that planned activities overlap with part of the Montebello Marine Park which forms part of the North-west Network of Marine Parks.</p> <p><b>(2)</b> asked to be made aware of incidences which occur within a marine park or are likely to impact on a marine park as soon as possible.</p> <p><b>(2)</b> requested notification to be provided to the 24 hour Marine Compliance Duty Officer.</p>	<p>Woodside has addressed the DNP’s feedback including:</p> <p><b>(1)</b> Confirmed no activities are planned to occur in Habitat Protection Zones, Recreational Use Zones, National Park Zones or Sanctuary Zones.</p> <p>Advised the EP assesses potential impacts and risks to both cetaceans and turtles from noise emissions as well as the potential for vessel strikes and the assessment determined that impacts have been reduced to ALARP.</p> <p>Demonstrates impacts and risks on the marine park values are reduced to ALARP.</p>	<p>Woodside considers the measures and controls in the EP are appropriate.</p> <p>No additional measures or controls are required.</p>

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<p>(3) Requested notification if the EP is approved; and 10 days before commencement of activities; and at the conclusion of activities.</p> <p>Woodside met with DNP during the meeting DNP advised that it had no further comments on the activity.</p>	<p>(2) Woodside will contact DNP if details regarding the activity change and result in a new impact to the marine park and notify the Marine Compliance Duty Officer within 24 hours.</p> <p>(3) Woodside will provide a notification 10 days prior to activities commencing within the marine park after EP approval.</p> <p>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 Error! Reference source not found. of the EP).</p>	
<p><b>Ningaloo Coast World Heritage Advisory Committee (NCWHAC)</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with NCWHAC for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to NCWHAC on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the NCWHAC with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside emailed the NCWHAC advising of the proposed activity (Record of Consultation, reference 2.11) and provided a Consultation Information Sheet.</li> <li>• On 12 May 2023, Woodside emailed AFMA advising of an update to the proposed activity (Record of Consultation, reference 3.12) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<p><b>Summary of Feedback, Objection or Claim</b></p>	<p><b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b></p>	<p><b>Inclusion in Environment Plan</b></p>

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 7.2.5 of the EP).	No additional measures or controls are required.
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**Department of Biodiversity, Conservation and Attractions (DBCA)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DBCA for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to DBCA on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the DBCA over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed the DBCA advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed DBCA advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 23 May 2023, DBCA emailed Woodside and responded with several points:
  - **(1)** There are a number of ecologically important areas including marine parks located in the vicinity of proposed operations, such as the Montebello Islands Marine Park.
    - These areas provide habitat for marine fauna species, including conservation significant species listed under the BC Act
    - Marine seismic surveys have the potential to impact marine fauna, particularly large marine fauna such as cetaceans and marine turtles that may be sensitive to underwater noise.
  - **(2)** Recommended that Woodside undertake a a risk assessment to determine the likelihood of potential impacts on marine fauna species which are likely to occur within the project area, accounting for the scale and biological significance of the noise to be produced, and management of the operations should then be commensurate with the level of risk of the associated activities.
  - **(2)** Best practice management of any significant underwater noise with the potential to impact marine fauna species should include the following:
    - Underwater noise modelling to determine range of potential impact.

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- Management zones
- Marine Fauna Observers are stationed on the vessel at all times.
- (3) If operations are to be undertaken at night acoustic monitoring is recommended as visual observations are likely to be ineffective.
  - Overnight operations also require consideration of artificial light and vessel strike. DBCA recommended that vessel lighting is designed to align with the standards of the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds* (DoEE 2022).
- (4) There is potential for marine parks including the Barrow Island Marine Park and Ningaloo Marine Park to be affected by Woodside's operations if there is a substantial hydrocarbon release.
  - Given the ecological importance of areas potentially affected by underwater noise or a hydrocarbon release from the proposed activities, it is considered important that the baseline values and state of the potentially affected environment are appropriately understood and documented prior to any operations commencing.
  - DBCA would like to have the confidence that Woodside has established appropriate baseline survey data on the current state of the areas supporting important ecological values and any current contamination if present within the area of potential impact of underwater noise and / or hydrocarbon releases.
- (5) DBCA advised it undertakes monitoring in marine parks and reserves and publishes monitoring reports which are available on the department's website.
  - Woodside should be aware that this monitoring is targeted to inform DBCA's values and objectives relating to marine park management and is not necessarily suitable to provide all baseline information required for oil spill risk assessment and management planning.
  - DBCA encourages Woodside to acquire the necessary information to implement a Before-After, Control-Impact (BACI) framework in planning and evaluating its management response. This may include independently monitoring and collecting data where required or identifying other data sources.
- (6) DBCA requested that in the event of a hydrocarbon release, Woodside is to notify DBCA's Pilbara regional office.
- On 6 September 2023, Woodside emailed DBCA thanking the department for its feedback on the EP.
  - Woodside confirmed that areas of ecological importance in the proximity of the EP Operational Areas will not be impacted by planned activities as the Montebello Islands Marine Park is at least 26 km from the closest Operational Area.
  - Woodside clarified that the activity is for geophysical surveys and geotechnical surveys and there will be no seismic survey associated with this EP. Therefore, there is no significant underwater noise associated with this activity.
  - Woodside also confirmed the Geophysical equipment which may be used and will result in noise emissions. The assessment of potential impacts to marine fauna from this noise has been included in the EP.
    - Woodside anticipates threshold levels for PTS are not exceeded and thresholds levels for TTS are not considered credible. The impact assessment has determined noise impacts are expected to be limited to localised (maximum of 150 m) behavioural disturbances from geophysical equipment for marine fauna.
    - Assessment of potential management and mitigation measures has been considered in the EP and relevant controls adopted to reduce the impact to as low as reasonably practicable.

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- Woodside outlined that in accordance with Regulation 12(3) and 13(3) of the Environment Regulations 2009 of the Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act, when describing the existing environment in EPs, Woodside includes details of the particular values and sensitivities of the environment within and in proximity to operational areas and the Environment that maybe affected (EMBA) for impact assessment and risk evaluation.
- Woodside confirmed it maintains knowledge and an understanding of areas of ecological importance within and adjacent to operational areas and therefore within the EMBA.
- An information system to track current existing environment knowledge is regularly updated and covers: EPBC Act Matters of National Ecological Significance (MNES) including threatened and migratory listed species, the WA Biodiversity Conservation Act – threatened and priority fauna list, the Part 13 Instruments, i.e., threatened species recovery plans and conservation advice, protected areas and information on the habitats and associated fish and benthic communities. Woodside also confirmed the sources of information.
- Woodside advised it is also committed to sharing knowledge and contributes to the Index of Marine Surveys for Assessment (IMSA) hosted by the Department of Water and Environmental Regulation (WA) and supported by WAMSI.
- Woodside confirmed its oil spill scientific monitoring program (SMP) will provide for a quantitative assessment of the overall environmental impacts in the event of an unplanned hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors.
  - Woodside shared information about the ten SMPs including standard operating procedures such as targeted environmental monitoring programs and associated processes.
  - The ten SMPs address a range of receptors most vulnerable to the impacts of a hydrocarbon release.
  - Woodside confirmed it maintains a baselines studies database based on Woodside commissioned studies, scientific publications, and publicly available study reports. The database includes documentation of baseline for: Muiron Islands Marine Management Area, Ningaloo Marine Park, Barrow Island Marine Management Area and Thevenard Island Nature Reserve.
- In regards to National Light Pollution Guidelines, Woodside confirmed that the lighting associated with activity vessels is required as a priority for safe operation.
  - Woodside has considered the Commonwealth Department of Climate Change, Energy, the Environment and Water's National Light Pollution Guidelines for Wildlife with respect to vessel activities.
  - The assessment of potential impacts to seabird and turtle behaviour, is based on recommendations in the National Light Pollution Guidelines. This impact assessment determined that the impacts of lighting are ALARP.
- Regarding incidents and emergency response, Woodside confirmed:
  - Woodside's Oil Pollution First Strike Plan for this activity includes a commitment that DBCA will be notified via phone call as soon as practicable in the event of a hydrocarbon release.
  - Woodside advised this plan describes the incident management structure, notification and reporting requirements, the Operational Area, activity specific credible spill scenarios, and the hydrocarbon spill response strategies available for the protection of priority receptors.
  - Links are included to a suite of existing Operational Plans and Tactical Response Plans (TRPs) to commence the mobilisation of response resources immediately.
  - Woodside has incorporated the DBCA Pilbara regional office telephone number as part of the notifications as listed in the Oil Pollution First Strike Plan.

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- Woodside notes that DBCA will not implement an oiled wildlife management response on behalf of a petroleum operator.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>DBCA provided feedback relating to:</p> <p>(1) Ecologically important areas including the marine parks located in the vicinity of the proposed operations (i.e., Montebello Islands Marine Park)</p> <p>(2) Woodside undertake a risk assessment to determine the likelihood of potential impacts on marine fauna species which are likely to occur within the project area</p> <p>(3) Acoustic monitoring and artificial light controls for overnight operations</p> <p>(4) Requesting Woodside to establish appropriate baseline survey data on the current state of areas</p> <p>(5) DBCA encourages Woodside to acquire the necessary information to implement a Before-After, Control-Impact (BACI) framework</p> <p>(6) DBCA also provided an 'Incidents and Emergency and requested Woodside to contact their Pilbara regional office in the event of a hydrocarbon release.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p>Woodside has addressed the DBCA's feedback, including:</p> <p>(1) Confirmed areas of ecological importance in the proximity of the Environment Plan Operational Area will not be impacted.</p> <p>(2) Confirmed assessment of potential impacts to marine fauna from this noise has been included in the EP and controls are adopted to reduce impact to ALARP.</p> <p>(3) Confirmed there will be no seismic survey associated with the EP and therefore no underwater noise associated with the activity. Confirmed lighting associated with the activity considers the National Light Pollution Guidelines and the impact assessment determined that impacts of lighting are ALARP.</p> <p>(4,5) Demonstrated that Woodside's information system to track current existing environment knowledge is regularly updated and covers topics of interest to the DBCA. Woodside maintains a baselines studies database.</p> <p>(6) Confirmed the oil spill SMP will provide for a quantitative assessment of the overall environmental impacts in the event of an unplanned hydrocarbon release. DBCA will be notified via phone call as soon as practicable.</p> <p>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 further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	<p>(1,2,3,4,5,6) Not required.</p> <p>No additional measures or controls are required.</p>

**Commonwealth and State Government Departments or Agencies – Industry**

**Department of Industry, Science and Resources (DISR)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DISR for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.

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- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to DISR on 28 April 2023 based on their functions, interests or activities.
- 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 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed the DISR advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed DISR advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) (formerly DMIRS)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with DEMIRS for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to DEMIRS on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the DEMIRS with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

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<ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed the DEMIRS advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed DEMIRS advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Commonwealth Commercial fisheries and representative bodies</b>		
<b>North West Slope and Trawl Fishery</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with North West Slope and Trawl Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to North West Slope and Trawl Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided the North West Slope and Trawl Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed the North West Slope and Trawl fishery advising of the proposed activity (Record of Consultation, reference 2.12) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed the North West Slope and Trawl fishery advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>

**Western Deepwater Trawl Fishery**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Western Deepwater Trawl Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Western Deepwater Trawl Fishery on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Deepwater Trawl Fishery with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed the Western Deepwater Trawl fishery advising of the proposed activity (Record of Consultation, reference 2.12) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Western Deepwater Trawl fishery advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>

**Commonwealth Fisheries Association (CFA)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with CFA for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to CFA on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the CFA with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside emailed the CFA advising of the proposed activity (Record of Consultation, reference 2.12) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed CFA advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>

**State Commercial fisheries and representative bodies**

**Marine Aquarium Managed Fishery**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Marine Aquarium Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Marine Aquarium Managed Fishery on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Marine Aquarium Managed Fishery with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside sent a letter to the Marine Aquarium Managed Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.
- On 15 May 2023, Woodside sent a letter to the Marine Aquarium Managed Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<b>Mackerel Managed Fishery (Area 2)</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Mackerel Managed Fishery (Area 2) for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Mackerel Managed Fishery (Area 2) on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up letter and email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Mackerel Managed Fishery (Area 2) with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside sent an email (Record of Consultation, reference 2.14) and letter (Record of Consultation, reference 2.13) to the Mackerel Managed Fishery (Area 2) advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> <li>• On 12 and 15 May 2023, Woodside sent an email (Record of Consultation reference 3.15) and letter (Record of Consultation, reference 3.14) to Mackerel Managed Fishery (Area 2) advising of an update to the proposed activity) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<b>Pilbara Crab Managed Fishery</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Pilbara Crab Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Pilbara Crab Managed Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up letter seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Pilbara Crab Managed Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside sent a letter (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet to the Pilbara Crab Managed Fishery advising of the proposed activity.</li> <li>• On 15 May 2023, Woodside sent a letter (Record of Consultation, reference 3.14) to Pilbara Crab Managed Fishery advising of an update to the proposed activity with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>West Coast Deep Sea Crustacean Managed Fishery</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with West Coast Deep Sea Crustacean Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to West Coast Deep Sea Crustacean Managed Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up letter seeking feedback on the proposed activities.</li> <li>• Woodside has provided the West Coast Deep Sea Crustacean Managed Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside sent a letter to the West Coast Deep Sea Crustacean Managed Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent a letter to West Coast Deep Sea Crustacean Managed Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
Specimen Shell Managed Fishery		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Specimen Shell Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Specimen Shell Managed Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Specimen Shell Managed Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent a letter to the Specimen Shell Managed Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent a letter to Specimen Shell Managed Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Land Hermit Crab Fishery</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Land Hermit Crab Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Land Hermit Crab Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Land Hermit Crab Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent a letter to the Land Hermit Crab Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent a letter to Land Hermit Crab Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Exmouth Gulf Prawn Managed Fishery</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Exmouth Gulf Prawn Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Exmouth Gulf Prawn Managed Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided the Exmouth Gulf Prawn Managed Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent an email to the Exmouth Gulf Prawn Managed Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

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<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent an email to Exmouth Gulf Prawn Managed Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Nickol Bay Prawn Managed Fishery</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environmental Regulations and consultation with Nickol Bay Prawn Managed Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Nickol Bay Prawn Managed Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email and letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Nickol Bay Prawn Managed Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent a letter to the Nickol Bay Prawn Managed Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent a letter to Nickol Bay Prawn Managed Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Onslow Prawn Managed Fishery (Area 1 and 2)</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Onslow Prawn Managed Fishery (Area 1 and 2) for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Onslow Prawn Managed Fishery (Area 1 and 2) on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email and letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Onslow Prawn Managed Fishery (Area 1 and 2) with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent an email (Record of Consultation, reference 2.14) and letter (Record of Consultation, reference 2.13) to the Onslow Prawn Managed Fishery (Area 1 and 2) advising of the proposed activity and provided a Consultation Information Sheet.</li> </ul>		



<ul style="list-style-type: none"> <li>On 12 and 15 May 2023, Woodside sent an email (Record of Consultation, reference 3.15) and letter (Record of Consultation, reference 3.14) to Onslow Prawn Managed Fishery (Area 1 and 2) advising of an update to the proposed activity with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
Western Australian Sea Cucumber Fishery		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environmental Regulations and consultation with Western Australian Sea Cucumber Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Western Australian Sea Cucumber Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Western Australian Sea Cucumber Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent a letter to the Western Australian Sea Cucumber Fishery advising of the proposed activity (Record of Consultation, reference 2.13) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 15 May 2023, Woodside sent a letter to the Western Australian Sea Cucumber Fishery advising of an update to the proposed activity (Record of Consultation, reference 3.14) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 <b>Section 7.2.5</b> of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
Pilbara Trap Fishery		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Pilbara Trap Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Pilbara Trap Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email and letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Pilbara Trap Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent an email (Record of Consultation, reference 2.14) and letter (Record of Consultation, reference 2.13) to the Pilbara Trap Fishery advising of the proposed activity and provided a Consultation Information Sheet.</li> </ul>		

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<ul style="list-style-type: none"> <li>On 12 and 15 May 2023, Woodside sent an email (Record of Consultation, reference 3.15) and letter (Record of Consultation, reference 3.14) to the Pilbara Trap Fishery advising of an update to the proposed activity with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<b>Pilbara Line Fishery</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Pilbara Line Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Pilbara Line Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided the Pilbara Line Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent an email (Record of Consultation, reference 2.14) to Pilbara Line Fishery advising of the proposed activity and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside sent an email (Record of Consultation, reference 3.15) to Pilbara Line Fishery advising of an update to the proposed activity with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<b>Pilbara Trawl Fishery</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Pilbara Trawl Fishery for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Pilbara Trawl Fishery on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email and letter seeking feedback on the proposed activities.</li> <li>Woodside has provided the Pilbara Trawl Fishery with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside sent an email (Record of Consultation, reference 2.14) and letter (Record of Consultation, reference 2.13) to Pilbara Trawl Fishery advising of the proposed activity and provided a Consultation Information Sheet.</li> </ul>		

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<ul style="list-style-type: none"> <li>On 12 and 15 May 2023, Woodside sent an email (Record of Consultation, reference 3.15) and letter to Pilbara Trawl Fishery (Record of Consultation, reference 3.14) advising of an update to the proposed activity with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>No feedback, objections or claims received despite follow up.</p>	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEE, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>
<p><b>Western Australian Fishing Industry Council (WAFIC)</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with WAFIC for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to WAFIC on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has addressed and responded to the WAFIC over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed WAFIC advising of the proposed activity (Record of Consultation, reference 2.15) and provided a Consultation Information Sheet.</li> <li>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.</li> </ul>		
<p>This document is protected by copyright. No part of this document may be reproduced, adapted, transmitted, or stored in any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved.</p> <p>Controlled Ref No: SA0006AH0000008 <span style="margin-left: 200px;">Revision:2</span> <span style="float: right;">Page 78 of 174</span></p> <p style="text-align: center;">Uncontrolled when printed. Refer to electronic version for most up to date information.</p>		

- 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 12 May 2023, Woodside emailed WAFIC advising of an update to the proposed activity (Record of Consultation, reference 3.16) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 27 June 2023, Woodside emailed WAFIC providing a response to feedback on a separate EP and followed up on feedback with respect to the activities proposed under this EP.

The summary above demonstrates that consultation for the purpose of regulation 25 of the Environmental Regulations is complete however, as per Woodside's commitment to ongoing consultation, engagement has continued as summarised below:

**Ongoing consultation:**

- 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 25 July 2023, WAFIC wrote to Woodside outlining concerns with the volume of consultation. WAFIC noted:
  - Since start of 2023, it had received more than 60 emails seeking feedback for proposed activities.
  - Each email placed workload pressures on WAFIC without sufficient resources to meet the deadlines.
  - It had a number of other oil and gas titleholders operating in WA waters seeking similar feedback for their activities.
  - 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 upcoming EP consultation, which were not relevant to this EP.
- On 25 August 2023, Woodside replied to WAFIC 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 impacts of the proposed activity.
  - Woodside is keen to meet with WAFIC to discuss a suitable consultation approach.
  - Woodside thanked WAFIC for sharing its 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 a number of Environmental Plans.
  - WAFIC noted the high level of consultation currently being experienced and resourcing requirements. It noted it needs to prioritise consultation and has 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.

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- 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.
- 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 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 the three 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	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC and individual relevant licence holders.</p> <p>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 7.6 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP.</p> <p>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.</p> <p>No additional measures or controls are required.</p>

**Western Rock Lobster Council**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Western Rock Lobster Council for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Western Rock Lobster Council on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the Western Rock Lobster Council with the opportunity to provide feedback over a 12 month period.

**Summary of consultation provided and relevant person responses:**

- On 28 April 2023, Woodside an email was sent to the Western Rock Lobster Council advising of the proposed activity (Record of Consultation, reference 2.16) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Western Rock Lobster Council advising of an update to the proposed activity (Record of Consultation, reference 3.17) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted DPIRD, WAFIC, the Western Rock Lobster Council and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of State fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP. No additional measures or controls are required.</p>

**Recreational marine users and representative bodies**

**Exmouth Recreational Marine Users**

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Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Exmouth Recreational Marine Users for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Exmouth Recreational Marine Users on 28 April 2023 based on their functions, interests or 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 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside sent an email to Exmouth Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 2.17) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Exmouth Recreational Marine Users advising of an update to the proposed activity (Record of Consultation, reference 3.18) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside has consulted 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 Revision process (see Section 7.2.5 of the EP).	No additional measures or controls are required.

**Gascoyne Recreational Marine Users**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Gascoyne Recreational Marine Users for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.

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- Consultation Information provided to Gascoyne Recreational Marine Users on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the Gascoyne Recreational Marine Users with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside sent a letter to Gascoyne Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 2.18) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside sent a letter to Gascoyne Recreational Marine Users advising of an update to the proposed activity (Record of Consultation, reference 3.19) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside has consulted 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 Revision process (see Section 7.2.5 of the EP).	No additional measures or controls are required.
<b>Pilbara/Kimberley Recreational Marine Users</b>		

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Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Pilbara/Kimberley Recreational Marine Users for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Pilbara/Kimberley Recreational Marine Users on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the Pilbara/Kimberley Recreational Marine Users with the opportunity to provide feedback over a 12 month period.

**Summary of consultation provided and relevant person responses:**

- On 28 April 2023, Woodside sent a letter to Pilbara/Kimberley Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 2.19) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside sent a letter to Pilbara/Kimberley Recreational Marine Users advising of an update to the proposed activity (Record of Consultation, reference 3.21) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	Woodside has consulted 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 Revision process (see Section 7.2.5 of the EP).	No additional measures or controls are required.

**Karratha Recreational Marine Users**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Karratha Recreational Marine Users for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.

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- Consultation Information provided to Karratha Recreational Marine Users on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up letter seeking feedback on the proposed activities.
- Woodside has provided the Karratha Recreational Marine Users with the opportunity to provide feedback over a 12 month period.

**Summary of consultation provided and relevant person responses:**

- On 28 April 2023, Woodside an email to Karratha Recreational Marine Users advising of the proposed activity (Record of Consultation, reference 2.20) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside sent a letter to Karratha Recreational Marine Users advising of an update to the proposed activity (Record of Consultation, reference 3.20) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.</p> <p>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 7.2.5 of the EP).</p>	No additional measures or controls are required.

**Recfishwest**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Recfishwest for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Recfishwest on 28 April 2023 based on their functions, interests or activities.
- 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 12 month period.

**Summary of information provided and record of consultation:**

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<ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed Recfishwest advising of the proposed activity (Record of Consultation, reference 2.17) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed Recfishwest advising of an update to the proposed activity (Record of Consultation, reference 3.18) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.</p> <p>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 7.2.5 of the EP).</p>	No additional measures or controls are required.
<b>Marine Tourism WA</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Marine Tourism WA for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Marine Tourism WA on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided Marine Tourism WA with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to Marine Tourism WA advising of the proposed activity (Record of Consultation, reference 2.17) and provided a Consultation Information Sheet.</li> </ul>		

<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed Marine Tourism WA advising of an update to the proposed activity (Record of Consultation, reference 3.18) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.</p> <p>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 7.2.5 of the EP).</p>	No additional measures or controls are required.
<b>WA Game Fishing Association</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with WA Game Fishing Association for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p>		
<ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to WA Game Fishing Association on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided WA Game Fishing Association with the opportunity to provide feedback over a 12 month period.</li> </ul>		
<b>Summary of information provided and record of consultation:</b>		
<ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to WA Game Fishing Association advising of the proposed activity (Record of Consultation, reference 2.17) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed WA Game Fishing Association advising of an update to the proposed activity (Record of Consultation, reference 3.18) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted Recfishwest, Marine Tourism Association of WA, WA Game Fishing Association and individual recreational marine users.</p> <p>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 7.2.5 of the EP).</p>	No additional measures or controls are required.

**Titleholders and Operators**

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

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Chevron for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Chevron Australia/ Osaka Gas Gorgon/ Tokyo Gas Gorgon/ JERA Gorgon on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Chevron Australia/ Osaka Gas Gorgon/ Tokyo Gas Gorgon/ JERA Gorgon over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Chevron Australia/ Osaka Gas Gorgon/ Tokyo Gas Gorgon/ JERA Gorgon advising of the proposed activity (Record of Consultation, reference 2.23) and provided a Consultation Information Sheet. Woodside asked Chevron to please forward this consultation information to your Joint Venture participants Osaka Gas Gorgon, Tokyo Gas Gorgon and JERA Gorgon for feedback.
- **(1)** On 3 May 2023 Chevron emailed Woodside advising of the consultation contact email for EPs and to request the GIS shape files relating to this proposed activity.
- On 12 May 2023, Woodside emailed Chevron Australia/ Osaka Gas Gorgon/ Tokyo Gas Gorgon/ JERA Gorgon advising of an update to the proposed activity (Record of Consultation, reference 3.23) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided. Woodside asked Chevron to 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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<ul style="list-style-type: none"> <li>On 12 May 2023, Chevron emailed Woodside with a reminder to please provide the GIS shape files so that Chevron is able to respond with any feedback.</li> <li>On 15 May 2023, Woodside emailed Chevron and provided the relevant shapefiles for the proposed activity.</li> <li>On 26 May 2023, Woodside emailed Chevron and provided updated an updated shape for Operational Area D and an extended time for Chevron to respond with any feedback.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) Chevron requested GIS shape files for the proposed activities.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside has provided Chevron with GIS shape files for the EP as requested.</p> <p>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 7.2.5 of the EP).</p>	<p>(1) Not required.</p> <p>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.</p> <p>No additional measures or controls are required.</p>
BP Developments Australia		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with BP Developments Australia for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to BP Developments Australia on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided the BP Developments Australia with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to BP Developments Australia advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> </ul>		

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<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed BP Developments advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Carnarvon Energy</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Carnarvon Energy for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Carnarvon Energy on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided Carnarvon Energy with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to Carnarvon Energy advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed Carnarvon Energy advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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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 7.2.5 of the EP).	No additional measures or controls are required.
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**Eni Australia**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Eni Australia for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Eni Australia on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Eni Australia with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Eni Australia advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed ENI Australia advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
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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 7.2.5 of the EP).	No additional measures or controls are required.
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**Finder No 9/16**

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Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Finder No 9/16 for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Finder No 9/16 on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Finder No 9/16 with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Finder No 9/16 advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Finder No 9/16 advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Jadestone**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Jadestone for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Jadestone on 28 April 2023 based on their functions, interests or activities.

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Jadestone with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Jadestone advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Jadestone advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Santos NA Energy Holdings / Santos Ltd / Santos WA Northwest / Santos Offshore / Santos WA Southwest / Santos (BOL) / Santos WA PVG**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Santos for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Santos on 28 April 2023 based on their functions, interests or 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 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Santos advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.

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<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed Santos advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
OMV Australia / Sapura OMV Upstream		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with OMV Australia / Sapura OMV Upstream for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to OMV Australia / Sapura OMV Upstream on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided OMV Australia / Sapura OMV Upstream with the opportunity to provide feedback over a 10 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to OMV Australia / Sapura OMV Upstream advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed OMV Australia / Sapura OMV Upstream advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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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 7.2.5 of the EP).	No additional measures or controls are required.
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**KATO Energy / KATO Corowa**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with KATO for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to KATO on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided KATO with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to KATO advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed KATO advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**PE Wheatstone**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with PE Wheatstone for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.

- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to PE Wheatstone on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided PE Wheatstone with the opportunity to provide feedback over a 10 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to PE Wheatstone advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed PE Wheatstone advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Kyushu Electric Wheatstone**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Kyushu Electric Wheatstone for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Kyushu Electric Wheatstone on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Kyushu Electric Wheatstone with the opportunity to provide feedback over a 12 month period.

<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to Kyushu Electric Wheatstone advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed Kyushu Electric Wheatstone advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<p><b>Vermillion Oil and Gas Operators</b></p> <p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Vermillion Oil and Gas Operators for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Vermillion Oil and Gas Operators on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided Vermillion Oil and Gas Operators with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to Vermillion Oil and Gas Operators advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> </ul>		



<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed Vermillion Oil and Gas advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided. No additional shipwrecks were identified.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Exxon Mobil Australia Resources Company</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Exxon Mobil Australia Resources Company for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to Exxon Mobil Australia Resources Company on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided Exxon Mobil Australia Resources Company with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to Exxon Moil Australia Resources Company advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed Exxon Mobil Australia Resources Company advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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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 7.2.5 of the EP).	No additional measures or controls are required.
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**Shell Australia**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Shell Australia for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Shell Australia on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Shell Australia with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Shell Australia advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Shell Australia advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
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 7.2.5 of the EP).	No additional measures or controls are required.

**JX Nippon O&G Exploration (Australia)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with JX Nippon for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to JX Nippon on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided JX Nippon with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to JX Nippon advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed JX Nippon advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Summary of Feedback, Objection or Claim	Summary of Feedback, Objection or Claim
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 7.2.5 of the EP).	No additional measures or controls are required.

**Longreach Capital Investments / Beagle No. 1 Pty Ltd**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Longreach Capital Investments / Beagle No. 1 Pty Ltd for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Longreach Capital Investments / Beagle No. 1 Pty Ltd on 28 April 2023 based on their functions, interests or activities.

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- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Longreach Capital Investments / Beagle No. 1 Pty Ltd with the opportunity to provide feedback over a 10 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Longreach Capital Investments / Beagle No. 1 Pty Ltd advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Longreach Capital Investments / Beagle No. 1 Pty Ltd advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Summary of Feedback, Objection or Claim	Summary of Feedback, Objection or Claim
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 7.2.5 of the EP).	No additional measures or controls are required.

**Fugro Exploration**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Fugro Exploration for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Fugro Exploration on 28 April 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided Fugro Exploration with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Fugro Exploration advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.

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<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed Fugro Exploration advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>INPEX Alpha</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with INPEX Alpha for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>Consultation Information provided to INPEX Alpha on 28 April 2023 based on their functions, interests or activities.</li> <li>Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>Woodside has provided INPEX Alpha with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to INPEX Alpha advising of the proposed activity (Record of Consultation, reference 2.21) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed INPEX Alpha advising of an update to the proposed activity (Record of Consultation, reference 3.22) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan

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 7.2.5 of the EP).	No additional measures or controls are required.
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**Peak Industry Representative bodies**

**Australian Energy Producers (AEP) (formerly APPEA)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with AEP for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Australian Energy Producers on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Australian Energy Producers over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to Australian Energy Producers advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed Australian Energy Producers advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Traditional Custodians and nominated representative corporations**

**Murujuga Aboriginal Corporation (MAC)**

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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 25 of the Environment Regulations and consultation with MAC for the purpose of regulation 25 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. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 of the Environment Regulations consultation.
- Provided Consultation Information Sheet and Summary Information Sheet to MAC on 18 May 2023 based on their functions, interests or activities. 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.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA’s brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that MAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside commenced consultation with MAC in October 2023. Woodside has provided MAC with the opportunity to provide feedback over a 12 month period, 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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:**

- On 3 and 5 April 2023, Woodside and MAC exchanged correspondence regarding a number of outstanding issues including time on the MAC agenda to meet and discuss various activities.

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- On 18 May 2023, Woodside emailed MAC advising them of the proposed activity (Record of Consultation, reference 2.24) 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 MAC and its members may have within the EMBA, information on how MAC would like to engage, and requested that MAC provide information to other individuals as required.
- On 22 June 2023, Woodside met with the MAC Board and Circle of Elders for a day meeting, to consult about a range of activities. This activity was not prioritised due to the extensive agenda.
- On 29 June 2023, Woodside emailed MAC advising of them of a separate activity and following up on feedback for this activity.
- 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.
- On 26 July 2023, Woodside emailed MAC outlining Woodside’s Program of Ongoing Engagement with Traditional Custodians for EPs.
- **(1)** 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 1 December 2023, Woodside emailed MAC again providing a simplified Consultation Summary Information Sheet (including a link to the detailed information sheet on Woodside’s website) as well as a summary overview fact sheet, requesting information on how the activity could impact MACs interests, activities and or cultural values, if they had any concerns about the proposed activity and what Woodside should do about those concerns and whether there are other individual, groups or organisations Woodside should talk to.
- On 5 January 2024, Woodside emailed MAC following up on multiple outstanding EP consultations including this activity.

**Ongoing relationship building:**

- Woodside has an ongoing two-way relationship with MAC on and continue to work together on matters important to MAC.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<b>(1)</b> On 1 September 2023, MAC confirmed that they were the appropriate body corporate and cultural authority over Murujuga.	<b>(1)</b> Woodside accepts and respects MAC’s position as the appropriate body corporate and cultural authority over Murujuga.	<b>(1)</b> Not required. Existing controls considered sufficient as described in Section 6.

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<p>No feedback, objections or claims have been received for this activity since consultation commenced in May 2023, despite follow up.</p>	<p>Woodside accepts that MAC has no feedback on this activity at this time. Woodside has an established and ongoing relationship with MAC and supports MAC engaging on EPs and other matters important to MAC.</p> <p>Separate from consultation under regulation 25 of the Environment Regulations, Woodside supports ongoing engagement with MAC (Section 7.10). As outlined in the consultation summary above, sufficient information and a reasonable period have been provided to demonstrate that consultation for the purpose of regulation 25 of the Environment Regulations is complete. Any further engagement with and support offered to MAC will be for the purpose of ongoing engagement.</p> <p>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 7.1.14).</p>	<p>Although consultation for the purpose of regulation 25 of the Environment Regulations is complete, Woodside will continue to engage with MAC through ongoing engagement and continue to progress with establishing a framework agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix G).</p>
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**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 discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with NTGAC for the purpose of regulation 25 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 NTGAC’s preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of NGAC’s choosing, with NTGAC nominated representatives. This meeting included information that was readily accessible and appropriate. Any further meetings would be considered as ongoing engagement post regulation 25(1) (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheet to NTGAC on 22 May 2023 based on their functions, interests or activities. 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.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.

- Provided NOPSEMA's brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that NTGAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside commenced consultation with NTGAC in May 2023. Woodside has addressed and responded to NTGAC over 12 months, demonstrating a "reasonable period" of consultation.
- Woodside asked NTGAC if 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 25 of the Environment Regulations, 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 7.6 of the EP).

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. Woodside does not agree with NTGAC's assertion that it has not yet been adequately consulted on 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.

**Summary of information provided and record of consultation:**

- On 22 May 2023, Woodside emailed NTGAC advising them of the proposed activity (Record of Consultation, reference 2.25) 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 NTGAC and its members may have within the EMBA, information on how NTGAC would like to engage, and requested that NTGAC provide information to other individuals as required.
- On 1 June 2023, Woodside emailed NTGAC following up on the email of 22 May and whether they needed further assistance in considering Woodside matters, including this activity.
- On 7 June 2023, NTGAC emailed Woodside apologising for delay and noting they would follow up with the Board in order to respond.
- On 19 June 2023, Woodside emailed NTGAC thanking them for the reply email and again confirming Woodside would be happy to provide assistance when required.
- On 19 June 2023, NTGAC replied to Woodside seeking a consultation workshop for Woodside activities including this activity and requesting advice whether a half day would be sufficient.
- On 19 June 2023, Woodside replied to NTGAC proposing a one-day workshop so they have time to consider and provide feedback all activities including this activity and reiterating Woodside could assist with all reasonable costs and logistics and are amenable to meeting NTGAC at a location to suitable to them.

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- On 20 June 2023, NTGAC sent two emails to Woodside stating they would return on whether a one day meeting was appropriate, and requesting Woodside to pay the attendance costs of YMAC's in-house environmental scientist.
- On 20 June 2023, Woodside sent two emails to NTGAC, which confirmed Woodside would pay for the cost of the environmental scientist and asking whether NTGAC's preference was that all Woodside activities for EP for which NTGAC is indicated as relevant be covered at the workshop.
- On 21 June 2023, NTGAC confirmed preference for all activities including this activity to be covered at the workshop.
- On 21 June 2023, Woodside emailed NTGAC suggesting a meeting to discuss and plan the workshop and to ensure that Woodside is well prepared and is able to assist with arrangements as required.
- On 30 June 2023, NTGAC provided Woodside with the cost estimate for the one-day workshop and stating they had scheduled the workshop for 15 August 2023.
- On 5 July 2023, Woodside confirmed with approval of the cost estimate and that 15 August was suitable. Woodside again offered to assist with workshop arrangements and to meet in advance so that Woodside could best prepare for the matters that are most important for NTGAC.
- On 5 July 2023, NTGAC replied to Woodside thanking them for the approvals and suggested liaison closer to date of workshop.
- On 17 July 2023, YMAC/NTGAC emailed Woodside referring to YMAC's proposed consultation framework for PBCs to consult with oil and gas companies. They requested that they no longer be consulted on the EPs at the workshop in August, but that Woodside run a strategic planning workshop with NTGAC to develop the benefits that Woodside can provide under the consultation agreement, to discuss the consultation framework and determine the best way to implement it.
- On 19 July 2023, Woodside emailed NTGAC alerting them to NOPSEMA's Guidelines and Policies in relation to consultation and handling of sensitive information and attaching them for reference. Woodside also encouraged NTGAC to advise on any other Traditional Custodian groups or individuals who may have an interested and should be consulted.
- On 24 July 2023, Woodside replied to NTGAC's email of 17 July 2023 confirming they would be happy to use the workshop to discuss the consultation framework, identification of opportunities and relationship building while also consulting on activities. Woodside also suggested the workshop be jointly run and not run by Woodside as suggested in the email of 17 July 2023 and requested a meeting to prepare.
- Between 28-31 July 2023, NTGAC and Woodside settled a date for a preparatory meeting.
- On 3 August 2023, Woodside emailed NTGAC about other activities but also thanking them for the preparatory meeting the previous day.
- **(1)** On 15 August 2023, Woodside attended a full day workshop with NTGAC which included, amongst other things, presentation, and feedback on this activity. Feedback included:
  - **(1)** NTGAC asked about ballast water discharges. Woodside described Invasive Marine Species requirements and controls such as hull cleaning, quarantine rules and dry docking, noting the risk is taken very seriously by Woodside.

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- **(2)** YMAC asked about whale sightings and Woodside's response to sightings. Woodside responded that the response to whale sightings depended on the specific activity and that controls like Marine Mammal Observers are implemented for particular activities.
  - 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).
  - **(6)** NTGAC discussed with Woodside social investment ideas in relation to their Strategic Plan and discussed how Woodside can support the local community. Woodside supported providing help, in various ways, as needed by the community.
  - **(3)** NTGAC requested that an independent environment assessment be funded. Woodside confirmed whether this meant a non-Woodside employee. NTGAC agreed.
  - **(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.
  - 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 a range of Woodside EPs, including for this proposed activity. They also stated that the information provided is too technical.
- **(4, 5 & 6)** On 31 August 2023, Woodside emailed NGTAC/YMAC providing a copy of the presentation from the meeting of 15 August 2023 and communicated Woodside's understanding of next actions:
    - YMAC to provide a first draft of a consultation agreement. Woodside has 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.
    - Woodside agreed to continue discussions relating to key community focus areas highlighted by NTGAC.
    - The feedback from NTGAC on the appropriateness of the information given by Woodside (too technical) to enable NTGAC to provide feedback.
    - Woodside noted that it considered consultation had commenced and was ongoing, however Woodside would work with NTGAC to develop the process further.
  - On 6 September 2023, Woodside emailed NTGAC/YMAC with responses to queries about another activity however related to this EP.
  - **(3)** On 6 September 2023, NTGAC/YMAC emailed Woodside acknowledging information and noting they would pass over to their environmental scientist, as was stated as part of their proposed framework for consultation on 15 August 2023 meeting.
  - **(5)** On 14 December 2023, Woodside emailed YMAC attaching the Program of Ongoing Consultation and advised that Woodside wanted to progress negotiations on consultation frameworks with groups represented by YMAC (including NTGAC). Woodside proposed the protocol would include (among other things):
    - The procedures Woodside will follow when a submission requires consultation.
    - Initial and ongoing consultation in relation to activities.
    - Agreement as to how Woodside will provide NTGAC with the information NTGAC requires to make free, prior and informed decisions about Woodside's EPs.

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- Agreement as to how NTGAC will provide feedback and how that can best be represented in EPs.
- An agreed schedule of rates for NTGAC’s participation in consultation.
- How the outputs of the consultations will be managed.

**Ongoing relationship building:**

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 Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) During face-to-face engagement on 15 August 2023, the NTGAC requested further information on a topic related to this proposed activity which was responded to during the meeting:</p> <ul style="list-style-type: none"> <li>● Ballast water discharges.</li> </ul> <p>(2) NTGAC have expressed a general interest in whales and whale sharks. Woodside discussed controls protecting whales and whale sharks from an ecological perspective during meetings in which they were raised, and no further feedback or comment was received on these topics.</p> <p>(3) NTGAC requested funding for YMAC’s in-house environmental scientist.</p> <p>(4) NTGAC claimed that they have not been consulted about the activity to date, stating that they could not provide information on cultural values because the information provided has been too technical and timeframes were not sufficient.</p> <p>(5) NTGAC are developing the first draft of a Consultation Agreement, and General Report. The proposal for the General Report is that it would outline the nature of the activities for each phase of the project and the risks associated with each of the relevant activities.</p>	<p>(1) Woodside responded to NTGAC’s request for further information during face-to-face engagement in which they were raised, and no further information was requested on this topic.</p> <p>(2) Woodside noted NTGAC’s interest in whales and whale sharks.</p> <p>(3) Woodside funded YMAC’s environmental scientist to attend the face-to-face meeting on 15 Aug 2023 to support consultation.</p> <p>(4) Woodside does not agree with NTGAC’s claim that it has not yet been consulted on the activity, or that information provided has been too technical. Woodside considers regulation 25 of the Environment Regulations consultation is complete and closed. Woodside met with NTGAC nominated representatives, at location of NTGAC’s choice on 15 Aug 2023 for multiple hour session where the activity was described face to face by Woodside project representatives, subject matter experts and First Nations relations advisers (see section 5 for approach). This included specifically developed “plain English” material developed by First Nations personnel in collaboration with technical experts, maps and pictures. During the meeting, NTGAC and YMAC representatives were encouraged 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 12 months, demonstrating a “reasonable period” of consultation.</p> <p>(5) Separate from consultation under regulation 25 of the Environment Regulations for this activity, Woodside will establish</p>	<p>(1) Existing controls considered sufficient, as described in Section 6.</p> <p>(2) Woodside updated Section 4.9.1 to reflect NTGAC’s interests and potential cultural values, including whales and whale sharks, and assessed potential impact on these, including controls, in section 6.6.</p> <p>(3) Not required</p> <p>(4) Not required</p> <p>(5) and (6) Woodside is implementing a program to actively support Traditional Custodians’ capacity for ongoing engagement and consultation on environment plans, (Appendix G). This includes continued engagement regarding NTGAC’s proposed Consultation Framework which will be applied to ongoing consultation, and potential support for their Strategic Plan. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix G.</p>

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<p>Woodside are awaiting receipt of the initial draft of the General Report.</p> <p>(6) NTGAC are interested in exploring social investment opportunities with Woodside which may support NTGAC's Strategic Plan.</p>	<p>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 regulation 25 of the Environment Regulations consultation ongoing engagement. 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, 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 meeting.</p> <p>(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 for exploring opportunities for alignment with NTGAC's Strategic Plan.</p> <p>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 7.6).</p>	
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**Buurabalayji Thalanyji Aboriginal Corporation (BTAC)**

BTAC is established under the Native Title Act 1993 by the Thalanyji people to represent the Thalanyji 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 25 of the Environment Regulations and consultation with BTAC for the purpose of regulation 25 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 BTAC's preferred method of consultation. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheet to BTAC on 18 May 2023 based on their functions, interests or activities. 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.

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- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that BTAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside commenced consultation with BTAC in May 2023. Woodside has addressed and responded to BTAC over a 12 month period, demonstrating a "reasonable" period of consultation.
- Woodside asked BTAC if 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 25 of the Environment Regulations, 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 7.6 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.

**Historical Engagement:**

On 20 February 2023, BTAC emailed Woodside a letter in relation to another project but relevant to all Woodside activities, including the footprint of this activity:

- **(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 Montebello islands, Barrow Island and the Mackerel Islands.
- BTAC advised it was seeking the opportunity to engage with Woodside and NOPSEMA on the activities.
- **(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 was 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 protect 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.

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- **(6)** BTAC noted that ongoing consultation with BTAC would 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.

**Summary of information provided and record of consultation:**

- On 19 April 2023, 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 18 May 2023, Woodside emailed BTAC advising them of the proposed activity (Record of Consultation, reference 2.26) 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 other individuals as required.
- **(6)** On 19 May 2023, BTAC responded asking that this activity be included within the consultation framework agreement.
- **(6)** On 14 June 2023, Woodside emailed BTAC setting out draft consultation principles for consideration in the framework agreement.
- **(6)** On 19 June 2023, BTAC replied to Woodside stating there was agreement in relation to consultation principles, that they were seeking from Woodside a draft presentation regarding all activities and that BTAC still needed to settle its consultation rates before provision to Woodside.
- 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.
- 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. This included an EMBA map providing a consolidation of all single activity EMBA's that have been notified to BTAC to date.
- 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, Woodside emailed BTAC meeting details to join a Teams meeting of 28 July 2023.
- **(6)** On 28 July 2023, BTAC emailed Woodside with outcomes of meeting, confirming Woodside has 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.

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- **(7)** 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 BTAC with three attached letters:
  - **(5)** Confirming Woodside's commitment to supporting BTAC to define and articulate Sea Country values.
  - Statement of commitment of Woodside's support for BTAC to undertake ethnographic assessment including a proposal for implementation.
  - A request for consent to the issuing to Woodside of a licence for an unrelated activity
- On 15 August 2023, Woodside telephoned and emailed the new acting-CEO of BTAC following up on correspondence provided on 31 July 2023 and proposing a meeting in August 2023.
- On 22 August 2023, the acting CEO of BTAC emailed Woodside thanking Woodside for their patience, acknowledging there are issues that have been open for an extended period and seeking time to get up to speed.
- On 23 August 2023, Woodside emailed BTAC thanking the acting CEO for his email and seeking a short meeting to talk through issues.
- **(6)** 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 co-ordinated, 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.
  - **(2 & 7)** Appropriate ways for mitigating risk and ensuring ongoing social licence. 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, Woodside emailed BTAC acknowledging correspondence and noting they would revert to BTAC with a response as soon as they had considered the content of the correspondence.
- **(7)** 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.
- **(7)** 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.
- **(6 & 7)** On 22 September 2023, Woodside emailed BTAC accepting BTAC's proposed consultation fee structure, the list of activities that Woodside has consulted BTAC on, including this EP, and advising that the draft framework agreement was under internal review.
- **(7)** 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, Banks-Smith & Associates (BSA) emailed Woodside clarifying that they are instructed by BTAC on this matter.

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- On 4 October 2023, Woodside emailed BTAC via BSA thanking them and stating that they look forward to an ongoing relationship with BTAC and its legal representation.
- On 13 October 2023, legal practice Banks-Smith and Associates emailed Woodside confirming they acted for BTAC on NOPSEMA matters. Among other things, they noted, they required an indemnity clause in the proposed framework agreement against any court action that arose from a claim against BTAC in regard to the consultation they engaged on with Woodside EP's.
- On 31 October 2023, BSA emailed Woodside, requesting a response to the email about indemnifying BTAC.
- **(7)** On 1 November 2023, Woodside emailed BTAC accepting the offer to present at the Common Law Holders meeting and offering to pay costs for the meeting.
- On 2 November 2023, Woodside emailed BSA noting they would not agree to the request to indemnify BTAC against any court proceedings as a result of consultation they engage in with Woodside on EP's. Woodside re-iterated their wish to progress the framework agreement to build their relationship with BTAC. Woodside again noted that they wish to progress other matters, including the commitment to mapping BTAC's sea country values.
- On 2 November 2023, BSA emailed Woodside requesting more detail about Woodside not supporting the indemnity request.
- On 3 November 2023, BSA emailed Woodside confirming that BTAC would like Woodside to present to a BTAC members meeting on 27 November 2023 in Carnarvon.
- On 18 November 2023, Woodside emailed BSA with further information about why they will not indemnify BTAC as requested in the 13 October 2023 email. Woodside explained that it could harm genuine engagement, may promote behaviours in others who may become aware of the indemnity by Woodside, and it would not be good practice to provide an indemnity in relation to the act or omission of other parties that Woodside would not necessarily engage with. Woodside again noted their commitment to build an ongoing relationship with BTAC.
- **(5, 6 & 7)** On 27 November 2023, Woodside attended and presented at the BTAC Common Law Holders meeting. The one-hour timeslot did not allow for taking feedback in relation to EPs, but the Common Law Holders meeting were made aware that Woodside had been attempting to meet since January and had agreed to pay for reasonable consultation costs as well as fund the Sea Country mapping but that these offers had not been taken up. BTAC members were very interested in an ongoing relationship and discussed sea country mapping, which Woodside had responded to in writing earlier in 2023, Woodside agreed to re-send the relevant correspondence to the new CEO. BTAC noted they would invite Woodside to attend a meeting with BTAC early in 2024, a collaborative agreement will be settled and further ongoing consultation on all relevant Eps will continue in order of priority for BTAC and Woodside.
- **(5, 6 & 7)** On 7 December 2023, Woodside emailed BSA requesting a response to the email of 18 November 2023 in relation to their request and Woodside's response on indemnification. Woodside noted that the framework agreement has not been finalised to date but would include the following:
  - Agreement between parties to consult in a meaningful and genuine manner.
  - Procedure Woodside will follow when a submission requires consultation, which would include notification and an invitation to meet.
  - Initial and ongoing consultation about activities.
  - How Thalanyji provides feedback and how to represent that feedback in submissions.
  - Agreed schedule of rates.
  - How to manage the outputs of consultation.
  - Woodside requested to meet to progress discussions with BTAC.
- **(2, 3, 5 & 7)** On 7 December 2023, Woodside emailed BTAC forwarding correspondence received from and correspondence sent to the previous CEO dated 20 February 2023 and dated 17 March 2023, confirming support for recording sea country values and confirming anthropological support. Woodside confirmed support to pay reasonable costs for ethnographic/anthropological support for mapping and recording sea country values. Woodside requested to be contacted to enable

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progress on the above matters. BTAC's letter of 20 February 2023 in relation to other activities noted interests in archaeological sites on nearshore islands including the Montebello and Barrow Islands, they noted a cultural obligation to care for sea country and environmental values.

- **(5)** On 7 December 2023, BTAC emailed Woodside accepting the offer to take up sea country mapping and research. BTAC requested a meeting in the week of 15 January 2024 to plan for upcoming activities.
- **(7)** On 8 December 2023, BSA emailed Woodside in relation to settling finance matter, noting they would wait to schedule a meeting with BTAC once financials sorted.
- On 8 December 2023, Woodside emailed BSA requesting further details on finances for the framework agreement, noting that Woodside's policies require itemised estimates for services.
- On 11 December 2023, BSA emailed acknowledging costs estimates would be provided shortly and requesting availability to meet with BTAC during January, February and March 2024.
- On 12 December 2023, BTAC emailed Woodside asking if 17 January 2024 was a suitable date to meet.
- **(5 & 6)** On 12 December 2023, Woodside emailed BSA noting that BTAC had suggested a meeting during the week of 15 January 2024 to discuss sea country mapping. Woodside suggested that they would include time to progress the framework agreement and present on the status of current EPs.
- On 15 December 2023, BTAC emailed Woodside requesting a copy of the slide presentation from the meeting of 27 November 2023.
- On 18 December 2023, Woodside emailed BTAC a copy of the slide presentation as requested from the meeting of 27 November 2023.
- On 19 December 2023, Woodside emailed BTAC agreeing to meet on 17 January 2024, Woodside provided an example of costings provided by other PBCs and noted they would not be able to pay legal fees if the framework agreement and EPs were not discussed. Woodside requested other meeting dates if the 17 January 2024 meeting was only to discuss sea country mapping.
- On 19 December 2023, BSA emailed Woodside noting that they had an understanding that the EP consultation and framework agreement would be discussed at the 17 January 2024 meeting. BSA queried the detail of the information being sought by Woodside on funding.
- On 20 December 2023, Woodside emailed BSA noting that they were seeking a cost estimate and required this prior to BSA being present at the BTAC meeting if they wished to be funded for attendance.
- On 9 January 2024, Woodside emailed BTAC confirming a meeting on 17 January 2024 to discuss sea country mapping, requesting logistics and cost coverage estimate.
- On 16 January 2024, BTAC emailed Woodside confirming meeting of 17 January 2024 with BTAC and requesting the names of Woodside attendees.
- On 16 January 2024, Woodside emailed BTAC with the names of Woodside attendees, as requested.
- On 17 January 2024, Woodside met with BTAC and discussed (among other things):
  - (5)** Sea country mapping, confirming:
    - BTAC choose their own experts for ethnographic survey.
    - BTAC retain intellectual property of material and may request information not be provided.
    - Fieldwork required with a preferred commencement in April, with Woodside personnel in attendance as guided by BTAC.
    - **(8)** BTAC prefer early notice on EPs, if possible.
    - **(4)** BTAC keen on employment/training opportunities and opportunities for rangers.
    - **(8)** BTAC to form a committee for consultation on EPs.
  - **(4)** On 17 January 2024, Woodside emailed BTAC information about training pathways as discussed at the meeting with BTAC on 17 January 2024.
  - On 8 February 2024, Woodside emailed BTAC following up on a quote for Woodside to support BTAC articulating sea country values.

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- **(5)** On 8 February 2024, BTAC emailed Woodside noting that they have a consultant generating a scope of work for articulating sea country values which will allow BTAC to understand costings.
- On 8 February 2024, Woodside emailed BTAC acknowledging their response.

**Ongoing engagement:**

- On 28 February 2024, Woodside emailed BTAC a draft consultation agreement for BTAC’s consideration.
- On 28 February 2024, BTAC emailed Woodside stating they had thought the fee agreement had been signed. BTAC queried if Woodside plans to cover the legal costs of BTAC’s consultation with Woodside.
- On 28 February 2024, Woodside emailed BTAC apologizing for the delay in providing the draft engagement framework. Woodside explained that a cost estimate is required prior to the provision of lawyer services. Woodside mentioned they were unclear as to why BTAC has refused to provide cost estimates and stated that this refusal is hindering the progress of multiple matters with BTAC. Woodside also explains that the framework agreement concerns only the method of consultation.

**Ongoing relationship building:**

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> BTAC stated that their interests include archaeological sites identified on nearshore islands including the Montebello Islands, Barrow Island and the Montebello Islands.</p> <p><b>(2)</b> BTAC has a cultural obligation to care for the environmental values of sea country.</p> <p><b>(3)</b> Requested Woodside supports BTAC in obtaining technical advice relating to the proposed activities which were sent to BTAC.</p> <p><b>(4)</b> Expressed desire to be involved in local emergency response capability, potentially via an Indigenous Ranger Program. Interested in opportunities for employment/training.</p> <p><b>(5)</b> BTAC have not specifically developed values regarding Sea Country into a format that could be articulated for consultation. BTAC sought support from Woodside to enable BTAC to define and articulate its values on Sea Country</p>	<p><b>(1)</b> The nearshore islands identified by BTAC do not fall within the EMBA and will not be impacted by any of the activities set out in the EP.</p> <p><b>(2)</b> Woodside assessed BTAC’s cultural obligation to care for environmental values of Sea country to represent potential cultural values.</p> <p><b>(3)</b> Woodside has offered financial support for technical advice and other support this has now been taken up, with further details to be addressed in writing from BTAC following the meeting of 17 January 2024. The draft Collaboration Agreement at (7) below includes technical support for recording of sea country values.</p> <p><b>(4)</b> Woodside will engage in ongoing consultation with BTAC for the purposes of ongoing monitoring, management and emergency response associated with environmental risk. On 17 January 2024 Woodside provided information about training/employment program to BTAC.</p> <p><b>(5)</b> Woodside agreed to support the articulation and recording of sea country values. This offer has been taken up with further details</p>	<p><b>(1)</b> Not required.</p> <p><b>(2)</b> Woodside updated Section 4.9.1 to record BTAC’s interests and potential cultural values and assessed potential impact on these, including controls, in Section 6.8.</p> <p><b>(3)</b> Not required.</p> <p><b>(4)</b> The Program for Ongoing Engagement with Traditional Custodians (Appendix G) includes commitments to social investment to support Indigenous Ranger programs, and support for Indigenous oil spill response capabilities.</p> <p><b>(5)</b> Woodside has developed the Thalanyji Sea Country Management process described in the EP Section 7.6 to develop a robust understanding of Thalanyji Sea Country cultural values and heritage features, in the absence of the ethnographic survey. Woodside has taken all reasonable steps to</p>

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<p>in a manner that could be more clearly understood by the offshore sector, government, and the community.</p> <p>(6) BTAC proposed a Collaboration Agreement as an appropriate mechanism to provide ongoing feedback to Woodside regarding its activities.</p> <p>(7) BTAC does not endorse any consultation without appropriate cost recovery.</p> <p>(8) BTAC requested early notification on EPs and are interested in forming a committee for ongoing consultation on EPs.</p>	<p>to be addressed in writing from BTAC following the meeting of 17 January 2024. The draft Collaboration Agreement at (7) below includes support for recording and articulation of Sea Country values. Completion of an ethnographic assessment is not required to undertake or complete consultation under regulation 25 Environment Regulations. Opportunity to undertake this work continues under the proposed Collaboration Agreement (see 6) as part of ongoing engagement. Woodside has been able to develop a robust understanding of Thalanyji Sea Country cultural values and features in absence of this assessment.</p> <p>(6) Separate from consultation under regulation 25 Environment Regulations, Woodside has drafted a Collaboration Agreement with BTAC and is awaiting final internal review. 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.</p> <p>(7) Woodside and BTAC have agreed on a Costs Acceptance Letter. 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 &amp; 7), and informed BTAC that it would financially support consultation meetings. 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.</p> <p>(8) Woodside supports ongoing consultation being conducted in the most appropriate way for BTAC.</p> <p>(9) 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 7.6).</p>	<p>identify cultural features and heritage features of Thalanyji people within the EMBA. This is described in Section 4.9.1. The proposed Collaboration Agreement and PS 16.2.1 enables an ethnographic survey to be undertaken at a later date. 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 7.2.5.2). PS 16.3.1 ensures that potential impacts to newly identified cultural values is managed to ALARP and Acceptable levels.</p> <p>(6) &amp; 7) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans. This is described further in the Program of Ongoing Engagement with Traditional Custodians, (Appendix J). This includes continued engagement regarding the Collaboration Agreement that Woodside seeks with BTAC, a draft of which includes support for BTAC to define and articulate sea values, provision of ongoing feedback and cost recovery.</p> <p>(7) Not required.</p>
<p><b>Yinggarda Aboriginal Corporation (YAC)</b></p>		

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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 25 of the Environment Regulations and consultation with YAC for the purpose of regulation 25 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 YAC’s preferred method of consultation. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheet to developed by Indigenous staff to YAC. 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.
- Woodside sought direction on YAC’s preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of YAC’s choosing, with YAC nominated representatives. This meeting included information that was readily accessible and appropriate.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA’s brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that YAC can request that particular information provided in the consultation not be published (to align with regulation 25 (4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside has addressed and responded to YAC over 12 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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:**

- From January 2023, Woodside has engaged in two-way communication with YAC through its then representative YMAC.
- On 27 April 2023, YMAC confirmed by email and phone call that they no longer represent Yinggarda Aboriginal Corporation and that a meeting on 3 May had been cancelled. Gumala Aboriginal Corporation is now representing YAC and YMAC is in the process of hand over, including correspondence with Woodside. On 28 April 2023, Woodside attempted to call Gumala Aboriginal Corporation and left a voicemail to establish connection.

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- On 28 April 2023, Woodside emailed Gumala Aboriginal Corporation to establish contact and inform them of the prior context. Woodside stated that it is still interested in meeting with the YAC board if they are interested.
- On 8 May 2023, Woodside phoned Gumala Aboriginal Corporation to follow up the email, explaining that it was seeking to consult Yinggarda on the proposed activity and noted that a planned meeting had been cancelled. Gumala Aboriginal Corporation indicated that the email address previously contacted was correct and indicated that it would call back. No return call was received.
- On 22 May 2023, Woodside emailed YAC advising them of the proposed activity (Record of Consultation, reference 2.27) 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 other individuals as required.
- 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, Gumala 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.
- **(3)** On 21 June 2023, Gumala Aboriginal Corporation emailed Woodside inviting attendance at a half day YAC Board meeting to discuss other EP matters and stated that they may seek further funding for an independent expert(s) to advise the YAC Board about the impact of the proposed activities, if they think it is required after the presentation.
- 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.
- On 29 June 2023, YAC emailed Woodside requesting presentation materials ahead of the meeting and outlining YAC's expectations and requirements for the consultation.
- On 30 June 2023, Woodside emailed YAC acknowledging these requirements and providing the requested information.
- On 1 July 2023, YAC emailed Woodside confirming receipt of the documents and advising these would be shared with the Board.
- **(1)** On 5 July 2023, Woodside presented to the YAC about a number of 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.
  - 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 the activity, and the individual worst-case loss of containment scenarios identified.

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- 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 will 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.
- At the 5 July meeting YAC made particular mention of the following:
  - **(1)** Whether Woodside has undertaken environmental studies and whether these studies are ongoing.
  - **(1)** What environmental monitoring happens after the EPs are approved.
  - Woodside responded that numerous environmental studies are undertaken, and they form part of the EPs, some information about ongoing commitments and research studies are available on Woodside's website. Woodside notes that they commit to ongoing consultation with YAC and will take feedback if any new information in relation to risks comes to light.
  - **(1)** YAC expressed sadness at the potential for environmental impact including plants and animals, including concern about potential impact to migration patterns of whales.
  - Woodside responded that potential impact from unplanned activities is very low and that they had not had a serious unplanned environmental impact in over 30 years. Woodside also responded to specific examples such as vessel collision with migratory species (e.g., whales) and stated that it would comply with regulatory requirements for interaction with marine fauna. Woodside would also adhere to defined observation and exclusion zones and implement adaptive management where required.
  - **(4)** YAC expressed interest in a ranger program to assist with environmental management and monitoring.
- On 5 July 2023, Woodside emailed YAC with thanks for the meeting, providing a copy of the presentation and links to further additional information.
- **(1)** On 17 July 2023, Woodside emailed YAC a letter summarising the 5 July meeting regarding consultation with YAC.
- 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.

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- On 19 July 2023, YAC emailed Woodside acknowledging receipt of Woodside's email of 19 July.
- On 26 July 2023, Woodside emailed YAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 2 August 2023, Banks-Smith and Associates (BSA) for YAC emailed Woodside to confirm that they had been retained to support with EP consultations.
- **(5 & 6)** On 4 August 2023, YAC via BSA emailed Woodside noting that:
  - YAC are willing to formally engage with Woodside on future NOPSEMA consultation.
  - Woodside was invited to submit a consultation agreement for YAC's consideration, setting out desired content.
  - Resourcing would be required, and Woodside should facilitate funding.
- On 10 August 2023, YAC via BSA 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.
  - **(7)** 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 advising that the YAC Board has authorised legal representative to engage in further conversations as required and report back to the YAC Board.
- **(5 & 6)** On 11 August 2023, Woodside emailed YAC notifying that activities under a separate and unrelated EP (subject of correspondence on 9 August) would not be commencing as planned, informing YAC that a proposed consultation agreement is in development, and making arrangements to provision of resources.
- **(5 & 6)** On 14 August 2023, YAC emailed Woodside stating that it looks forward to receiving the consultation agreement for consideration and agreeing arrangements for provision of resourcing.
- **(5)** On 14 September 2023, Woodside emailed YAC a proposed consultation framework.
- **(5)** On 14 September 2023, YAC emailed Woodside confirming receipt of the consultation framework and advising they would seek direction from the YAC board.
- **(5)** On 13 October 2023, BSA emailed Woodside confirming they act for YAC on NOPSEMA matters. Among other things, they noted, they required an indemnity and hold harmless clause be included in the Framework Agreement to protect against potential exposure to activist litigation.
- On 2 November 2023, Woodside emailed BSA advising they would not agree to the request to indemnify YAC against any court proceedings as a result of consultation they engage in with Woodside on EPs.

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- On 2 November 2023, BSA emailed Woodside requesting information on the reason for Woodside's position not to include indemnification in the consultation agreement.
- On 18 November 2023, Woodside emailed BSA with further information about why they would not indemnify YAC as requested in the 13 October 2023 email. Woodside explained that it could harm genuine engagement, may promote behaviours in others who may become aware of the indemnity by Woodside, and it would not be good practice to provide an indemnity in relation to the act or omission of other parties that Woodside would not necessarily engage with.

**Ongoing engagement:**

- On 8 March 2024, Woodside emailed YAC a draft consultation agreement for YAC's consideration.
- On 12 March 2024, YAC (via BS&A) emailed Woodside a proposed schedule of rates to be recommended to the YAC board. YAC (via BS&A) stated they will await Woodside's response before presenting the consultation agreement before the YAC board.
- On 4 April 2024, Woodside emailed YAC (via BS&A) advising them of the new point of contact and amended the proposed rates for YAC to consider. Woodside questioned when the board meeting was and asked if they would like to discuss further.

**Ongoing relationship building:**

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

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> During face-to-face engagement YAC requested further information on topics related to this proposed activity which were responded to during the meeting:</p> <ul style="list-style-type: none"> <li>○ Whether Woodside has undertaken environmental studies and whether these studies are ongoing.</li> <li>○ What environmental monitoring takes place following EP approval.</li> <li>○ Expressed sadness at potential for environmental impact, on plants and animals.</li> </ul>	<p><b>(1)</b> Woodside responded to YAC's requests for further information, and no further information was requested on these topics.</p> <p><b>(2)</b> Woodside notes YAC's general interest in whales.</p> <p><b>(3)</b> Woodside has agreed to fund reasonable costs of an independent expert, YAC has not taken up this offer to date.</p> <p><b>(4)</b> Woodside has confirmed that they support ranger programs and look forward to discussing opportunities during ongoing engagement with YAC.</p> <p><b>(5)</b> Separate from consultation under regulation 25 Environment Regulations, Woodside has provided a draft Framework Agreement for YAC's consideration. Woodside does not consider YAC's request for a consultation agreement as a pre-requisite for consultation under regulation 25</p>	<p>(1) &amp;2) Existing controls are considered sufficient, as described in Section 6.</p> <p>(3) Not required.</p> <p>(4) 5 &amp; 6) As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations, this includes continued engagement regarding the Framework Agreement that Woodside seeks with YAC. This is described further in the Program of Ongoing Engagement with Traditional Custodians, Appendix G. The Framework</p>

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<p>(2) YAC 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.</p> <p>(3) YAC sought funding of an independent expert if they later deemed it necessary but have not since requested this.</p> <p>(4) YAC expressed interest in a ranger program to assist with environmental management and monitoring.</p> <p>(5) YAC stated it wishes to enter into a Framework Agreement to consider this proposed activity and others.</p> <p>(6) YAC requires Woodside to fund further engagement.</p> <p>(7) YAC stated after 6 months of consultation that it required further time to consider the proposed activity and other activities.</p>	<p>Environment Regulations. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff. Woodside has also provided a reasonable period and opportunity for consultation (12 months).</p> <p>(6) Woodside has agreed to fund reasonable requests or resourcing.</p> <p>(7) Woodside does not agree with YAC's claim it requires more time for consultation on this activity. Woodside met with YAC's nominated representatives, at the location of YAC's choice on 5 July for a half day meeting where the activity was described face to face by Woodside project representatives, subject matter experts and First Nations relations advisers (see section 5 for approach). This included specifically developed "plain English" material developed by First Nations personnel in collaboration with technical experts, maps, pictures and a short video visually communicating the drilling process. During the meeting YAC representatives were encourage to control the pace of the engagement and seek clarification. YAC asked questions about the activity which indicates that material was engaged with.</p> <p>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 7.6).</p>	<p>Agreement will address reasonable funding requests and ranger engagement.</p> <p>(7) Not required.</p>
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**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 25 of the Environment Regulations and consultation with WAC for the purpose of regulation 25 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. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to WAC. 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.
- Woodside sought direction on WAC's preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of WAC's choosing, with WAC nominated representatives. The meeting included information that was readily accessible and appropriate.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals as required.
- Provided NOPSEMA's brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that WAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside has addressed and responded to WAC over a 12 month period, 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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 18 May 2023, Woodside emailed WAC advising them of the proposed activity (Record of Consultation, reference 2.29) 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. 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 other individuals as required.
- On 6 July 2023, Woodside sought to confirm Woodside's meeting with the WAC Board and Elders on 19 July 2023.
- 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. None were identified.
- On 19 July 2023, Woodside met with the WAC Board and Elders and consulted on this activity and other activities. At the meeting Woodside:

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- 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.
- 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 the activity, and the individual worst-case loss of containment scenarios identified.
- Stated that Woodside wanted to understand how the functions, activities or interests of WAC 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 WAC for the life of the EP.
- During the meeting section on the GWA Geophysical & Geotechnical Surveys, WAC asked:
  - **(1)** Whether they can get on the vessels, and that they have done it with Chevron.
  - Woodside responded that they would take that away as an action, or else it would be possible to provide video footage.
  - WAC compared the potential spills from this activity to the Exxon incident.
  - Woodside responded that Exxon was much more than two vessels, but that yes that is absolutely the worst case scenario. Woodside explained the differences in crude oil and marine diesel, and how composition of oils are considered when working out the EMBA.
- On 20 July 2023, Woodside emailed WAC thanking them for their time, and following up on WAC's undertaking to provide feedback in writing after internal discussions. Also followed up about progressing Woodside's support for WAC's capacity to engage.
- On 20 July 2023, WAC emailed Woodside with thanks for the presentation, and requesting a list of all Woodside activities and EPs currently in progress, and maps depicting relevant EMBA's.
- On 26 July 2023, Woodside emailed WAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 10 August 2023, Woodside emailed WAC a list of Woodside EPs currently under consultation, and others it expected to consult WAC on later in 2023. EMBA's and maps for each were provided.

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- On 10 August 2023, WAC emailed Woodside to thank for the information and asking questions about EMBAs for other proposed activities. They stated they would provide written feedback in due course.
- On 15 August 2023, Woodside emailed WAC to provide information relating to EMBAS for other proposed activities, in response to questions from WAC on 10 August 2023.
- On 15 August 2023, WAC emailed Woodside acknowledging receipt of the information.
- On 31 August 2023, WAC emailed Woodside a letter regarding support for ongoing engagement and consultation across a range of Woodside EP's including this EP.
- **(2)** On 11 September 2023, WAC emailed Woodside with a copy of the letter of 31 August, 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 letter.
- On 28 September 2023, Woodside emailed WAC advising a change of focal point within Woodside.
- On 3 October 2023, Woodside and WAC exchanged email correspondence on the logistics of booking a meeting to discuss the environment plan. Woodside offered to meet WAC at a location suitable to them.
- On 20 October 2023, WAC and Woodside met and discussed:
  - Current EPs and how parties intended to support each other through the process.
  - Woodside's intention to ensure that WAC was adequately consulted on all EPs.
  - WAC's current corporate restructure and the impact of this on ability to engage in consultation.
  - **(2)** WAC's interest in discussing a Framework Agreement once the new CEO was settled in.
  - WAC confirmed they would address all open EPs as a matter of priority. Noted the WAC AGM was taking shortly.
- On 19 December 2023, Woodside emailed WAC wishing a happy festive season, thanking WAC for their contributions throughout the year and offering availability for consultation sessions.
- On 19 December 2023, WAC emailed Woodside noting its thanks for Woodside support.

**Ongoing engagement:**

- On 1 February 2024, WAC emailed Woodside apologising and cancelling a meeting that was scheduled for the next day.
- On 1 February 2024, Woodside emailed WAC advising them that another time can be scheduled in the upcoming weeks for Woodside to introduce themselves and talk through any matters that they would like assistance with.
- On 6 February 2024, WAC emailed Woodside advising of a position change and the best point of contact moving forward.
- On 28 February 2024, Woodside emailed a WAC point of contact and WAC administration introducing themselves and enquiring about the best point of contact.

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- On 6 March 2024, Woodside emailed WAC a draft consultation agreement for WAC’s consideration and offered the opportunity to meet and discuss further.
- On 6 March 2024, WAC emailed Woodside requesting a word copy be sent for review.
- On 6 March 2024, Woodside emailed WAC the requested Word copy for review.

**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	Inclusion in Environment Plan
<p>(1) At a face-to-face meeting, WAC asked the following question about this activity:</p> <ul style="list-style-type: none"> <li>○ Whether they can get on the vessels.</li> </ul> <p>(2) WAC expressed that it does not object to Woodside progressing this proposed activity on the provision that Woodside and WAC enter into a framework agreement to provide for ongoing engagement and partnership through the agreement.</p>	<p>(1) Woodside responded to WAC’s requests for further information, and no further information was requested on these topics.</p> <p>(2) Separate from consultation under regulation 25 of the Environment Regulations, Woodside will establish a framework agreement with WAC. The agreement will 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.</p> <p>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 7.6).</p>	<p>(1) Not required.</p> <p>(2) As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations and continue to progress with establishing a framework agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix G).</p>

**Kariyarra Aboriginal Corporation (KAC)**

Kariyarra is established under the Native Title Act 1993 by Kariyarra people to represent the Kariyarra 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.

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Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Kariyarra Aboriginal Corporation for the purpose of regulation 25 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 Kariyarra preferred method of consultation. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to KAC. 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.
- Woodside sought direction on KAC's preferred method of consultation. This resulted in a face-to-face meeting being coordinated at the location of KAC's choosing, with KAC nominated representatives. This meeting included information that was readily accessible and appropriate. Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA's brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that KAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside has addressed and responded to Kariyarra over 12 months, demonstrating a "reasonable period" of consultation.
- Woodside asked KAC if 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 25 of the Environment Regulations, 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 7.6 of the EP).

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

**Summary of information provided and record of consultation:**

- On 18 May 2023, Woodside emailed KAC advising them of the proposed activity (Record of Consultation, reference 2.28) 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. The email requested information on the interests that KAC and its members may have within the EMBA, information on how KAC would like to engage, and requested that KAC provide information to other individuals as required.
- On 6 July 2023, Woodside emailed KAC following up on this activity, and offering to meet to provide to provide an overview and consult on all planned activities.

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- On 18 July 2023, Woodside emailed KAC NOPSEMA's Consultation Guidelines, Consultation Brochure, and Draft Policy for Managing Gender-Restricted Information. This email also reiterated Woodside's request that KAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 26 July 2023, Woodside emailed KAC Woodside's planned Program of Ongoing Engagement with Traditional Custodians.
- On 31 August 2023, KAC emailed Woodside advising of new legal representation.
- On 31 August 2023, KAC's legal representative emailed Woodside requesting copies of documents previously provided to KAC and seeking confirmation that Woodside would cover KAC's costs as well as legal costs and other specialist advice.
- On 13 September 2023, Woodside emailed KAC's legal representative confirming in principle agreement to cost recovery, but that an approximate, reasonable quote was required and must be provided for approval.
- **(1, 2 & 3)** On 28 September 2023, KAC's legal representative provided a single figure non-itemised quote. The email attached a letter dated 22 September 2023 entitled "Kariyarra and Woodside – Scarborough Project Consultation Requirements" and set out proposed negotiations for a consultation protocol and co-management agreement. The letter did not refer to this activity but referred to values and interests in Sea Country including traditional fishing and gathering rights in the ocean and presence of mythic snakes.
- Between 20 and 23 October 2023, several emails were exchanged in relation to costs and Woodside reiterated the need for a reasonable quote.
- **(2)** On 26 October 2023, the KAC legal representative emailed Woodside in relation to a separate activity stating Woodside's proposed cost structure was inadequate and would confer with EDO the Traditional Owners that have taken court action.
- **(2)** On 14 November 2023, the KAC legal representative emailed Woodside in relation to a separate activity stating that they had taken their concerns to the EDO.
- **(2)** On 22 November, Woodside emailed KAC (via legal representative) reiterating a preparedness to fund consultation for consultation meetings and noting that Woodside were looking at implementing further environmental controls in relation to operations to reduce or remove any potential impact to KAC sea country. Woodside said they wished to progress the framework agreement and suggested a full day meeting with KAC. The agreement could set out a protocol for ongoing consultation on EPs where consultation for purposes of developing an EP is closed, and for consultation on development of EPs for new activities.
- **(1)** On 23 November 2023, KAC legal representative emailed Woodside agreeing to the proposed process, requesting a draft consultation protocol and proposing a meeting in December.
- **(2)** On 23 November 2023, KAC legal representative sent a further email to Woodside confirming that KAC would be seeking recovery of costs incurred to date.
- **(2)** On 29 November 2023, Woodside phoned KAC legal representative to confirm a meeting on 5 December and to further discuss costs.
- **(1 & 2)** On 29 November 2023, KAC (via legal representative) emailed Woodside with details of a meeting with KAC, request for proposed protocol, costs for meeting and suggested Agenda for the meeting.
- On 29 November 2023, KAC (via legal representative) emailed Woodside requesting confirmation of costs quote, confirming logistics of meeting and Agenda.
- **(1, 2)** On 29 November 2023, Woodside emailed KAC (via legal representative) attaching Woodside's Program of Ongoing Consultation, a revised Agenda and suggesting the protocol between KAC and Woodside would set out:
  - How Woodside and KAC would consult, the basic procedure for initial and ongoing consultation in relation to activities

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- Agreement as to how Woodside would provide KAC information.
- How KAC would provide feedback and how Woodside represents that into submissions.
- Agreed schedule of rates.
- How the outputs of the consultations are managed.
- On 29 November 2023, KAC (via legal representative) emailed Woodside with an amended proposed Agenda for the upcoming meeting.
- **(1 & 3)** On 5 December 2023, Woodside and KAC met in Port Hedland. At the meeting Woodside
  - Presented on an Engagement Protocol.
  - What Woodside plan to do to protect the environment.
  - Presented the regulatory context.
  - Spoke about the biological studies that are carried out through different times of the year.
  - Discussed why Woodside were talking to KAC.
  - Displayed the EMBA and how it was developed.
  - Showed projects open for ongoing consultation.
  - Spoke to what Woodside were seeking to understand from KAC:
    - 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?
  - **(3)** KAC asked how Woodside maintain the validity of controls over periods of times, sighting turtles as an example in terms of whether current controls would be sufficient into the future.
    - Woodside noted that there is ongoing monitoring and Woodside would apply its Management of Change and Revision process to address controls.
  - Noted the EP's subject of ongoing consultation, including this EP.
  - Spoke to planned and unplanned risks.
- **(3)** KAC gave a presentation to Woodside on their sea country rights and duties:
  - Accessing sea country for fishing, trapping, crabbing catching turtle, hunting dugong, using stingray barbs for spears and collecting shellfish.
  - Visiting offshore islands at low tide.
  - Passing on traditional knowledge to children.
  - Secret habitat tokens.

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- Having duties to look after and protect all of KACs sea country.
- (1, 3, & 4)** KAC outlined their consultation requirements to Woodside:
  - **(3)** Co-designed and co-managed approach to protecting sea country.
  - On-going input into EPs.
  - **(1)** An agreement with Woodside.
  - **(4)** Funding for sea rangers.
  - A positive and collaborative relationship.
- **(1)** On 13 December 2023, KAC (via legal representative) emailed Woodside with outcomes of the 5 December meeting, confirming availability for a workshop in March 2024 and that KAC and Woodside aim to reach agreement on an engagement protocol by mid-2024.
- **(1 & 3)** On 20 December 2023, Woodside emailed KAC (via legal representative) confirming the process for ongoing consultation, noting information to be included in EPs provided by KAC and noting that Woodside looks forward to reaching agreement with KAC on a consultation process.
- **(3)** On 20 December 2023, KAC (via legal representative) emailed Woodside noting further information regarding sea country features and values KAC wish noted within EPs.
- **(1)** On 20 December 2023, KAC (via legal representative) emailed Woodside acknowledging they looked forward to progressing an agreement in 2024 between KAC and Woodside.
- **(1 & 3)** On 13 January 2024, KAC (via legal representative) emailed Woodside a draft agreement preparation letter from the PKMN chair and team. The letter included an outline of the cost estimate for the preparation of a draft agreement, review of the agreement, negotiations and settling of the agreement.
- **(1 & 3)** On 21 February 2024, Woodside emailed KAC (via legal representative) discussing costings and attached a letter with the terms of a draft agreement noting:
  - Level of information to satisfy KAC to make informed decisions on the proposed activities.
  - Reasonable period for consultation.
  - How information would be provided.
  - Feedback, objections, and claims and how KAC would provide these.
  - Reasonable costs and expenses to be agreed.
  - How the agreement would be terminated.
- On 22 February 2024, KAC (via legal representative) emailed Woodside requesting a word version of the document.
- On 22 February 2024, Woodside emailed KAC (via legal representative) the requested Word version of the document.

**Ongoing engagement:**

- On 10 March 2024, KAC (via legal representative) emailed Woodside a draft agreement.

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- On 12 March 2024, Woodside emailed KAC (via legal representative) confirmation of the agreement and advised KAC the agreement will be reviewed and a response will be given as soon as able.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) KAC have noted that they want to engage on matters with Woodside and would like to develop an Engagement Protocol for (among other things) ongoing input into Eps and a collaborative relationship with Woodside.</p> <p>(2) KAC has indicated they require costs to be met for KAC to be engaged in consultations with Woodside.</p> <p>(3) At a face-to-face meeting on 5 December 2023, KAC gave a presentation about their sea country rights and duties. They mentioned:</p> <ul style="list-style-type: none"> <li>o Fishing, trapping, crabbing catching turtle, hunting dugong, and using stingray barbs for spears and collecting shellfish.</li> <li>o Visiting offshore islands at low tide.</li> <li>o Secret habitat tokens.</li> <li>o Having a duty to look after and protect sea country.</li> <li>o KAC Asked how the validity of current controls are maintained and appropriate into the future.</li> </ul> <p>(4) KAC requested funding for sea rangers.</p>	<p>(1) <b>&amp; 2)</b> Woodside have agreed to fund reasonable costs and funded the 5 December 2023 meeting. Woodside will fund future meetings on an agreed costs basis to be set out in the Engagement Protocol. Woodside and KAC have agreed to hold a workshop in early March 2024 to progress towards an Engagement Protocol as requested and agreed by KAC and Woodside. As outlined in the consultation summary above, sufficient information and a reasonable period have been provided to demonstrate that consultation for the purpose of regulation 25 of the Environment Regulations is complete. Any further engagement with and support offered to KAC will be for the purpose of ongoing engagement.</p> <p>(3) Woodside has noted the KAC’s values and interests in sea country in Section 4.91. Woodside accepts that KAC may have sea country values within the EMBA for this EP.</p> <p>(4) Sea ranger funding is able to be addressed in the proposed agreement with KAC, Woodside is open to reasonable funding for rangers.</p> <p>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 7.6).</p>	<p>(1) 2 &amp; 4) As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations, this includes ongoing engagement with KAC and working towards a Framework Agreement which will include reasonable funding and sea ranger support.</p> <p>(3) Existing controls considered sufficient as described in Section 6 of the EP. Woodside recognises that KAC holds Sea Country rights and interests that need to be protected (Section 4.9.1).</p>

**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 25 of the Environment Regulations and consultation with RRKAC for the purpose of regulation 25 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. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to RRKAC. 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.
- Woodside sought direction on RRKAC preferred method of consultation.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.
- 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 individuals.
- Provided NOPSEMA’s brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that RRKAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside has addressed and responded to RRKAC over 12 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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:**

- On 18 May 2023, Woodside emailed RRKAC advising them of the proposed activity (Record of Consultation, reference 2.30) 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. 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 other individuals as required.
- On 18 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 KAC advise Woodside of any other Traditional Custodian groups or individuals with whom Woodside should consult.
- On 26 July 2023, Woodside emailed RRKAC Woodside’s planned Program of Ongoing Engagement with Traditional Custodians.

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- **(1 & 2)** 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.
- **(2)** On 14 August 2023, Woodside emailed RRKAC proposing a meeting to discuss opportunities for the Rangers.
- **(1)** On 14 August 2023, RRKAC responded to Woodside advising that RRKAC would set up a time to meet with Woodside.
- **(3)** On 15 September 2023, RRKAC emailed Woodside in response to correspondence on another EP, noting that RRKAC need resources in order to adequately respond.
- **(3)** On 18 September 2023, Woodside sent two emails to RRKAC clarifying that Woodside can provide funding to support consultation activities and requested RRKAC provide quotes and attached a Proposed Program of Ongoing Engagement with Traditional Custodians. An email was also sent from Woodside vendor onboarding process. No response has been received.
- **(3)** On 14 November 2023, Woodside emailed RRKAC seeking to discuss what support RRKAC may need in order to be able to fully engage in EP consultation.
- On 14 November 2023, RRKAC responded to Woodside that another team member would support Woodside’s request.
- On 16 November 2023, Woodside emailed RRKAC with thanks and advised that Woodside would wait to hear from the nominated individual.
- On 1 December 2023, Woodside emailed RRKAC following up on the activity, referencing previous emails. Woodside informed RRKAC that consultation prior to being submitted to NOPSEMA will close for this EP in the first quarter of 2024. Woodside re-iterated that consultation was ongoing for the life of the plan and Woodside would assess and respond to any feedback and comments received post this EP being submitted to NOPSEMA.
- On 11 January 2024, Woodside and RRKAC, held a telephone discussion:
  - **(1)** RRKAC have recently employed new personnel, RRKAC noted that once the new employees were settled in, RRKAC would be happy to consult with Woodside on relevant EPs.
  - **(4)** RRKAC noted that some RRKAC country is on the coast (and would be affected by an oil spill or another such environmental incident), they feel that EMBA’s are far too broad, and the areas covered by EMBA’s are far too big and unfeasible.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>RRKAC have not provided feedback, objections to date or claims in response to the information provided on this activity since consultation commenced in May 2023.</p> <p>(1) RRKAC note that they wish to consult with Woodside on relevant EPs.</p> <p>(2) RRKAC requested information regarding opportunities for Indigenous Rangers to protect sea and coastal country.</p>	<p>Woodside accepts that RRKAC have no feedback on this activity at this time.</p> <p><b>(1)</b> 2 &amp; 3) Woodside supports ongoing engagement and have responded to RRKACs advice about the limitations on their resources. Woodside has offered to support RRKAC with reasonable costs. As outlined in the consultation summary above, sufficient information and a reasonable period have been provided to demonstrate that consultation for the purpose of regulation 25 of the Environment Regulations is complete. Any further engagement with and support offered to RRKAC will be</p>	<p><b>(1) 2 &amp; 3)</b> As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulation and continue to progress with establishing a Framework Agreement as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix G). This includes addressing RRKAC’s resourcing</p>

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<p>(3) RRKAC have said they are insufficiently resourced to fully engage and respond regarding Eps.</p>	<p>for the purpose of ongoing engagement. Woodside has assessed the Program of Ongoing Engagement with Traditional Custodians will support progression of opportunities for Indigenous Rangers.</p> <p>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 7.6).</p>	<p>issue for ongoing consultation via a Framework Agreement, and opportunities for Indigenous Rangers.</p>
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**Ngarluma Aboriginal Corporation (NAC)**

NAC is established under the Native Title Act 1993 by the Ngarluma people to represent the Ngarluma 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 25 of the Environment Regulations and consultation with NAC for the purpose of regulation 25 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. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to NAC. 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.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA’s brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that NAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside has addressed and responded to NAC over 12 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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.

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**Summary of information provided and record of consultation:**

- On 18 May 2023, Woodside emailed NAC advising them of the proposed activity (Record of Consultation, reference 2.31) 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 NAC and its members may have within the EMBA, information on how NAC would like to engage, and requested that NAC provide information to other individuals as required.
- 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.
- On 26 July 2023, Woodside emailed NAC Woodside’s planned Program of Ongoing Engagement with Traditional Custodians.
- 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 has been made with the NAC contact.
- On 11 August 2023, Woodside had a web meeting with NAC to discuss plans for consultation. NAC requested a list of priority EPs for which Woodside would seek input from NAC.
- On 18 September 2023, NAC emailed Woodside in relation to EP consultation generally. This email proposed:
  - **(1)** Establishment of Joint Working Group.
  - **(2)** Woodside to provide draft agreement.
  - Working group meeting commence in October with monthly meetings.
  - **(3)** Budget proposal for meetings.
- On 28 September 2023, a NAC representative emailed Woodside requesting a phone discussion about consultations with NAC.
- **(1, & 3)** On 28 September 2023, Woodside had a phone discussion with a NAC representative who was following up on Woodside consultation requests and wished to progress a consultation meeting with the NAC Working Group in October. The representative requested Woodside:
  - Proposed date/s to meet.
  - Confirmed Woodside would cover cost.
  - Provided any relevant information prior to the meeting.
  - Advised on which EPs it would like to consult with NAC.
  - Woodside agreed to follow up on the above and looked forward to meeting with the Working Group in October.

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- **(1)** On 10 October 2023, Woodside emailed NAC in response to NAC's email of 18 September 2023, in principle supporting NAC's proposal for ongoing consultation through a Working Group. Woodside requested meeting dates and asked NAC if it would prefer that Woodside provided a first draft of the agreement.
- On 19 October 2023, Woodside emailed NAC following up on the 1 October 2023 email.
- **(2)** On 19 October 2023, NAC emailed Woodside advising it would provide a draft engagement letter soon. NAC also asked if there were any urgent matters pending.
- On 2 November 2023, Woodside emailed NAC outlining top priorities and listed future EPs for consultation, including this EP and asked for feedback from NAC.
- On 3 November 2023, Woodside emailed NAC with a future EP priority list, including this EP. Woodside also asked NAC for their availability over the following two weeks.
- **(2)** On 3 November 2023, NAC emailed Woodside asking how long it would take to cover the list of EPs in a meeting. NAC also informed Woodside it would send through an engagement letter that day.
- **(2)** On 3 November 2023, NAC emailed Woodside a draft engagement protocol letter and stated it looked forward to closing out this matter and scheduling a meeting.
- **(2 & 3)** On 10 November 2023, Woodside phoned NAC and discussed upcoming consultation priorities and the draft consultation framework. NAC stated they are struggling to engage in consultation due to resourcing constraints.
- **(3)** On 13 November 2023, Woodside emailed NAC acknowledging resourcing constraints, and outlining high priority EP and other consultation matters and requesting a face-to-face meeting.
- **(2)** On 13 November 2023, NAC emailed Woodside advising availability for a meeting in the week of 25 November and requesting a response on the draft consultation protocol.
- **(2 & 3)** On 13 November 2023, Woodside emailed NAC clarifying the status of EP and other consultation requirements, noting that EP related consultations have been delayed due to NAC's stated resource constraints, and confirming that Woodside will revert on the draft consultation framework.
- **(2)** On 13 November 2023, NAC emailed Woodside confirming that Woodside is not seeking any urgent EP consultations and that the consultation framework should be in place before consultation meetings take place.

**Ongoing engagement:**

- On 1 March 2024, Woodside emailed NAC a draft consultation framework agreement for review.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
NAC have not provided feedback, objections to date or claims in response to the information provided on this activity since consultation commenced in May 2023.	Woodside accepts that NAC have no feedback on this activity at this time.  <b>(1) 2 &amp; 3)</b> Separate from consultation under regulation 25 of the Environment Regulations, Woodside will establish an agreement	<b>(1) 2 &amp; 3)</b> As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment

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<p>(1) NAC proposed establishing a Joint Working Group to engage in meetings with Woodside for ongoing consultation.</p> <p>(2) NAC has proposed an engagement protocol to cover ongoing consultation.</p> <p>(3) NAC noted it had capacity issues and required resourcing to cover costs of meeting.</p>	<p>with NAC and work with the NAC Working Group. The agreement and Working Group would be used to frame ongoing consultation and provide reasonable funding to NAC. Sufficient information to allow informed assessment has already been provided by other means, including summary sheets developed by Indigenous staff.</p> <p>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 7.6).</p>	<p>Regulations and continue to progress with establishing an engagement protocol as part of Woodside’s Program of Ongoing Engagement with Traditional Custodians (Appendix G). This protocol will address reasonable funding requests and will set down how Woodside work with the Joint Working Group.</p>
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**Yindjibarndi Aboriginal Corporation (YAC)**

YAC is established under the *Native Title Act 1993* by the Yindjibarndi people to represent the Yindjibarndi 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 25 of the Environment Regulations and consultation with YAC for the purpose of regulation 25 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 Yindjibarndi’s preferred method of consultation. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.
- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to YAC on 18 May 2023 based on their functions, interests or activities. 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.
- Confirmed the purpose of consultation and set out in detail what is being sought through consultation.
- Ask for the consultation and information sheets to be distributed to members and individuals.
- Provided NOPSEMA’s brochure “Consultation on offshore petroleum environment plans” and Guideline “Guideline: Consultation in the course of preparing an environment plan”.
- Advised that YAC can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.

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- Woodside commenced consultation with Yindjibarndi in October 2023. Woodside has responded to Yindjibarndi over 12 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 engages in ongoing consultation, beyond that required by regulation 25 of the Environment Regulations, 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 7.6 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:**

- On 18 May 2023, Woodside emailed YAC advising them of the proposed activity (Record of Consultation, reference 2.32) 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 YAC and its members may have within the EMBA, information on how YAC would like to engage, and requested that YAC provide information to other individuals as required.
- **(1)** On 6 July 2023, Woodside received a telephone call from Yindjibarndi, noting they did not comment on coastal activities.
- **(2)** On 7 July 2023, YAC confirmed by telephone previous advice that they would leave comments on these activities to coastal Aboriginal Corporations.
- 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.
- On 26 July 2023, Woodside emailed Yindjibarndi Woodside’s planned Program of Ongoing Engagement with Traditional Custodians.
- **(3)** On 1 August 2023, in reply to Woodside’s email regarding the Program of Ongoing Engagement, YAC advised that NYFL would now be representing their interests in Oil and Gas matters.

**See NYFL on behalf of Yindjibarndi below for record of further engagement.**

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<b>(1)</b> Yindjibarndi has provided a response and advised that it will not be providing any comment on the proposed activity.	<b>(1)</b> Woodside accepts Yindjibarndi’s response.	<b>(1)</b> Not required.
<b>(2)</b> Yindjibarndi expressed that they would prefer that traditional owner groups with land and sea	<b>(2)</b> Woodside agrees and respects Yindjibarndi’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.	<b>(2)</b> Not required.
		<b>(3)</b> Future correspondence will be sent through NYFL.

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<p>adjacent to and within the precinct of the projects provide comment.</p> <p>(3) Yindjibarndi has instructed Woodside that it will be represented by NYFL in ongoing discussion about EPs, once an agreed process is developed between NYFL and Woodside.</p>	<p>(3) Woodside will engage with NYFL on behalf of Yindjibarndi for ongoing consultation related to this activity, separate from consultation under regulation 25 of the Environment Regulations.</p> <p>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 7.6 of this EP).</p>	<p>Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on YAC's functions, interests or activities.</p> <p>As identified in Section 7.8.2.1 of this EP, Woodside will continue to consult following acceptance of the EP, as required by the implementation strategy as set out in regulation 14(9) of the Environment Regulations and continue to progress with establishing an engagement protocol as part of Woodside's Program of Ongoing Engagement with Traditional Custodians (Appendix G). Based on the engagement to date, no additional controls have been identified.</p>
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**Native title representative bodies**

**Yamatji Marlpa Aboriginal Corporation (YMAC)**

YMAC is the Native Title Representative Body (NTRB) for the Yamatji and Pilbara regions. 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 EMBA, 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.

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with YMAC for the purpose of regulation 25 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 YMAC's preferred method of consultation. This resulted in meetings being coordinated at location of YMAC's choosing, with YMAC 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 developed by Indigenous staff to YMAC. 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.
- Articulated planned and unplanned environmental risks and impacts, with proposed controls.

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside commenced consultation with YMAC in May 2023. Woodside has addressed and responded to YMAC over 12 months, demonstrating a "reasonable period" of consultation.

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- Woodside asked YMAC if 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 25 of the Environment Regulations, 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 7.6 of the EP).

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

#### **Historical Engagement:**

- On 13 March 2023, Woodside emailed YMAC as to whether YMAC considers itself a 'relevant person' under regulation 25(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 15 March 2023, Woodside emailed YMAC requesting a position on whether YMAC consider itself a 'relevant person' under the Environment Regulations for the purposes of consultation in EP's.
- **(1)** On 20 March 2023, YMAC replied to confirm that in its view it is a 'relevant person' under regulation 25(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.
- On 20 March 2023, YMAC emailed Woodside confirming that they agree to their advice being included in reporting.

#### **Summary of information provided and record of consultation:**

- On 22 May 2023, Woodside emailed YMAC them of the proposed activity (Record of Consultation, reference 2.34) 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 YMAC and its members may have within the EMBA, information on how YMAC would like to engage, and requested that YMAC provide information to other individuals as required. YMAC is the representative for NTGAC.
- On 12 June 2023, YMAC emailed Woodside on behalf of itself and its clients. The email attached:
  - **(2)** A proposal to fund in-house expertise to support consultations and administration of the consultation framework.
  - **(2)** A draft consultation framework.
- On 12 June 2023, Woodside emailed YMAC, thanking them for the documents and informing them that Woodside would respond shortly.

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- On 20 June 2023, Woodside emailed the Yamatji Marlpa Aboriginal Corporation advising of the proposed activity (Record of Consultation, reference 1.57) and provided a Summary Consultation Information Sheet.
- 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.
- On 14 December 2023, Woodside emailed YMAC re-attaching the Program of Ongoing Consultation and advising that Woodside would like to progress negotiations on consultation frameworks with groups represented by YMAC. Woodside proposed the protocol would include (among other things):
  - The procedures Woodside will follow when a submission requires consultation.
  - Initial and ongoing consultation in relation to activities.
  - Agreement as to how Woodside will provide the information groups requires to make free, prior and informed decisions about Woodside’s EPs.
  - Agreement as to how groups will provide feedback and how that can best be represented in EPs.
  - An agreed schedule of rates for groups participation in consultation.
  - How to manage the outputs of the consultations.

**Ongoing engagement:**

- On 28 February 2024, Woodside emailed YMAC draft consultation agreements for consideration of the groups that YMAC represents.
- On 29 February 2024, YMAC emailed Woodside confirming receipt of the draft consultation agreements. YMAC informed Woodside that the agreements will be reviewed and a response will be provided accordingly.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
(1) YMAC has provided feedback that in its view it is a ‘relevant person’ under regulation 25(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	(1) Woodside accepts YMAC’s feedback that it is a relevant person only in relation to its facilitation and coordination function as a representative body. Woodside has consulted with YMAC in relation to its facilitation and coordination function as a Native Title Representative Body under applicable federal legislation,	(1) Not required. (2) Woodside will continue to engage with YMAC in relation to its request for an industry funded position and has put a proposal to YMAC in December 2023 for a Framework Agreement. This is described further in the Program of

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<p>federal legislation and does not intend to provide substantive comment on the content of EPs.</p> <p>(2) 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.</p>	<p>and it has responded that it does not intend to provide substantive comment on the content of EPs.</p> <p>(2) Woodside has assessed the Program of Ongoing Engagement with Traditional Custodians will support ongoing consultation with YMAC and/or the groups it represents. This can address appropriate support for resourcing, separate from consultation under regulation 25 of the Environment Regulations. Sufficient information to allow informed assessment has already been provided by other means.</p> <p>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 7.6).</p> <p>Woodside is engaging with YMAC in relation to its request for an industry funded position and a draft consultation framework.</p>	<p>Ongoing Engagement with Traditional Custodians, (Appendix G).</p>
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**Self-identified First Nations Groups and Individuals**

**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.

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with NYFL for the purpose of regulation 25 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. As sufficient information and a reasonable period have been provided (see below), any meetings would be considered as ongoing engagement post regulation 25 (Environment Regulations) consultation.

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- Provided Consultation Information Sheet and Summary Information Sheets developed by Indigenous staff to NYFL based on their functions, interests or activities. 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.
- 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 individuals.
- Provided NOPSEMA's brochure "Consultation on offshore petroleum environment plans" and Guideline "Guideline: Consultation in the course of preparing an environment plan".
- Advised that NYFL can request that particular information provided in the consultation not be published (to align with regulation 25(4) of the Environment Regulations).

**Reasonable Period:**

- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Woodside commenced consultation with NYFL in May 2023. Woodside has responded to NYFL over 12 months, demonstrating a "reasonable period" of consultation.
- Woodside asked NYFL if 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 25 of the Environment Regulations, 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 7.6 of the EP).

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

**Summary of information provided and record of consultation:**

- On 22 May 2023, Woodside emailed NYFL advising them of the proposed activity (Record of Consultation, reference 2.33) 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 NYFL and its members may have within the EMBA, information on how NYFL would like to engage, and requested that NYFL provide information to other individuals as required.
- **(1)** On 22 May 2023, NYFL emailed Woodside advising that it considered itself a relevant stakeholder, and requesting information in an appropriate format for Traditional Custodians and saying that the language and approach in the information sheets was not appropriate for NYFL's members.
- On 8 June 2023, NYFL emailed Woodside about a number of 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 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 to and can meet in Roebourne, assuming that is preferred.

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- On 28 June 2023, Woodside emailed NYFL confirming a consultation date of 20 July and requesting NYFL send through a quote for costs.
- **(2)** 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.
- **(2)** On 29 June 2023, NYFL emailed Woodside in response to Woodside’s email on another activity. 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.
- **(2)** 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 in order to get some agreement on priorities and next steps for Industry;
  - After the National Summit of Indigenous Groups, the first of a number of 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 regulation 25(1)(d) of the 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 regulation 25 of the Environment Regulations. 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.
- **(2)** On 10 July 2023, NYFL stated that they did not agree with the facilitators record of the NOPSEMA Summit and reiterated that they looked forward to developing the negotiation framework.
- On 18 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.
- 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, including requesting resourcing to support consultation including other positions within the organisation.

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- On 11 August 2023 YAC through the NYFL emailed Woodside in response to another matter noting that YAC look forward to progressing discussion with Woodside on the proposed program of consultation. A letter attached with the email set out, among other things, YAC's views on consultation, method of communication and funding for participation for YAC's consultation.
- On 15 August 2023, Woodside emailed YAC through the NYFL thanking them for their correspondence and requesting availability to meet.
- On 18 August 2023, NYFL proposed a meeting date to meet with Woodside to discuss next steps for the engagement process.
- On 18 August 2023, Woodside agreed to the proposed meeting on August 30, 2023.
- 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 noting for discussion:
  - **(5)** Strain on limited resources.
  - Representative capacity of NYFL.
  - **(6)** Noting next steps; NYFL's involvement in the upcoming development of the National First Nations led Framework on consultation, indicating this should provide greater guidance to both Traditional Owner groups and Industry.
- **(3 & 4)** On 30 August 2023, Woodside and NYFL met to discuss a consultation process and engagement with NYFL and YAC, NYFL put forward the following:
  - NYFL requested Woodside employ 3 Traditional Owners who would engage/consult with NYFL members.
  - NYFL stated that time frames must be longer than one month for consultation.
  - Woodside took the requests on notice.
- **(5)** On 12 September 2023, NYFL emailed Woodside, summarising the meeting between Woodside and NYFL regarding consultation approaches on 30 August, providing a letter regarding consultation. NYFL also stated their short- and long-term needs to support ongoing consultation including greater resourcing for consultation and capacity building. No further detail on this matter has been received beyond the specific request for 3 Traditional Owners consultant trainees which were raised in the meeting of 30 August 2023 and taken on notice by Woodside.
- **(6)** On 27 October 2023, NYFL provided NYFL's position statement regarding industry consultation which was a change of position from its advice on 29 June 2023. NYFL noted that it expects an updated proposal regarding consultation to be provided by Woodside. NYFL advised that it does not have the capacity to respond adequately to EPs or other consultation material sent by proponents nor did it feel the process results in a fair representation of Traditional Owner interests.
- On 3 November 2023, Woodside emailed NYFL acknowledging receipt of the consultation position statement and stating that Woodside would revert to NYFL following internal discussion.
- **(2 & 6)** On 7 November 2023, Woodside emailed NYFL again requesting to meet in person, noting that NYFL had previously said they did not want Woodside to progress the proposal until after the summit taking place in Darwin. Woodside suggested a date to meet later in November which allowed for time to consider outcomes of the Summit.
- **(5 & 6)** On 19 November 2023, NYFL emailed Woodside, stating that they were awaiting an updated consultation framework from Woodside and were not able to meet as they didn't have resources to apply to developing a framework but looked forward to providing feedback on an updated framework.
- On 20 November 2023, Woodside emailed NYFL confirming receipt of the email of 19 November 2023.

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- On 1 December 2023, Woodside emailed NYFL following up on the activity, referencing previous emails. Woodside informed NYFL that consultation prior to being submitted to NOPSEMA will close for this EP in the first quarter of 2024. Woodside re-iterated that consultation was ongoing for the life of the plan and Woodside would assess and respond to any feedback and comments received post this EP being submitted to NOPSEMA.
- On 4 December 2023, Woodside emailed NYFL:
  - seeking clarification about changes in recent correspondence, noting that NYFL had indicated on several occasions over a number of months that they wished to await outcomes of the First Nations Sea Country Summit in Darwin and would be involved in the development of the National First Nations Led Framework on consultation.
  - Woodside indicated that they had requested to meet face to face with NYFL in November as Woodside wanted to understand NYFL's expectations and discuss the outcomes of the Summit.
  - Woodside also wanted to discuss the strategic sponsorship funding request noting they required a business case to understand what NYFL was suggesting and how it would align with NYFL's strategic objectives.
- On 6 December 2023, NYFL emailed Woodside noting that:
  - At the meeting of 30 August 2023 there was discussion about challenges and proposed solutions to progress EP consultation.
  - **(5)** NYFL operate in a resource-constrained environment.
  - A proposal to NYFL responding to issues raised at the above meeting was expected.
  - **(2)** The Summit had been referred to as a potential useful resource for developing an updated framework.
  - NYFL had agreed to progress the Program of Ongoing Engagement with Traditional Custodians.
  - Social investment and capacity building funding should remain separate to consultation regarding EPs and other environment and heritage matters.
- On 14 December 2023, Woodside emailed NYFL, following up on previous emails about consultation on EPs, acknowledging NYFL's resource constraints and limitations that can be allocated to consultation on the EPs. Woodside proposed/noted the following to support consultation activities that would provide NYFL with the ability to engage and provide input and feedback:
  - Woodside intends engaging a senior Ngarluma person in an advisory/liaison capacity, which will include facilitating consultation with NYFL members in relation to EPs.
  - An agreement between Woodside and NYFL to consult in a meaningful and genuine manner.
  - The procedures Woodside will follow when a submission requires consultation.
  - Initial and ongoing consultation in relation to relevant Woodside EPs and the senior Ngarluma person's role in facilitating those consultations.
  - Agreement as to how Woodside will provide NYFL with the information NYFL requires to make free, prior and informed decisions about Woodside's EPs.
  - Agreement as to how NYFL will provide feedback and how that can best be represented NYFL's feedback to NOPSEMA or other relevant organisations.
  - An agreed schedule of rates for NYFL's participation in the consultations regarding Woodside's EPs.
  - How to manage the outputs of the consultations.
  - Agreement on an approach to minimise duplication of consultation activities conducted with NAC, Yindjibarndi and NYFL.
  - An EP Consultation Working Group with representation from Woodside and NYFL.
  - Suggested further discussion on the proposal at the NYFL/Woodside Quarterly meeting on 19 December 2023.

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

**Ongoing engagement:**

- On 19 December 2023, Woodside emailed NYFL thanking them for their contributions in 2023 and expressed eagerness to work with the Ngarluma and Yindjibarndi community in 2024. Woodside also offered the opportunity for further information or consultation sessions if requested.
- On 6 March 2024, in continuation to the email sent 14 December 2023, Woodside emailed NYFL a draft consultation agreement, which outlines the aims and framework of consultation, and clarified that the agreement will be effective in the interim until the outcomes of the Sea Country Summit are finalized. Woodside advised that they are open to feedback and suggested amendments from stakeholders.
- On 14 March 2024, NYFL emailed Woodside acknowledging that the draft consultation agreement had been received, and an internal discussion is being held with plans to provide a proposed solution soon.
- On 19 March 2024, NYFL emailed Woodside a draft estimate from the review of Woodside's proposed consultation agreement.
- On 5 April 2024, NYFL emailed Woodside an update on the communication between NYFL and Woodside, stating where NYFL responded to the request for a consultation agreement on EPs and provided a quote to progress, but has not yet received a response from Woodside. NYFL agrees that a consultation agreement is appropriate as an interim and looks forward to hearing back from Woodside.
- On 5 April 2024, Woodside emailed NYFL advising them that Woodside will catch up on some reading.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) NYFL self-identified and advised Woodside they are a relevant person for activities.</p> <p>(2) NYFL wished to pause consultation on activities until after the First Nations National Summit was held and a framework for consultation developed. NYFL noted they were working with First Nations Organisations and representative Bodies to develop a framework for consultation. This has not yet been proposed to Woodside. The summit took place in Darwin in November 2023.</p>	<p>(1) Woodside has responded to NYFL's self-identification 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 Yindjibarndi 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 Yindjibarndi 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.</p>	<p>(1) NYFL has been consulted with in accordance with the methodology described in Section 5 of the EP.</p> <p>(2) Not required.</p> <p>(3) The proposed Framework Agreement will address appropriate NYFL resourcing.</p> <p>(4) Not required.</p> <p>(5) See point (4) above.</p> <p>(6) Woodside is implementing a program to actively support Traditional Custodians' capacity for ongoing engagement and consultation on environment plans. This is described further in the Program of Ongoing</p>

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<p>(3) NYFL requested that Woodside employ three Ngarluma/Yindjibarndi Traditional Owners who would consult with NYFL members.</p> <p>(4) NYFL stated that time frames must be longer than one month for consultation.</p> <p>(5) NYFL have noted they operate in a restrained resource environment.</p> <p>(6) NYFL have acknowledged they support an agreement to enable a process of consultation. They have previously indicated they were working with other organisations to develop a consultation framework, more recently they have indicated they are waiting on Woodside to put forward a proposal.</p>	<p>(2) Woodside did not consider the proposal that consultation be paused until the proposed First Nations National Summit was reasonable. Woodside continued to offer to meet to progress discussions with NYFL, a meeting was held on 30 August 2023 and further meetings were proposed by Woodside over the following months during September to December but were not taken up. Separate from consultation under regulation 25 of the Environment Regulations, 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 while preparing this EP. The framework could 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 via the Quarterly Heritage Group which enables regular communication about Woodside activities.</p> <p>(3) Woodside does not consider NYFL's request that Woodside employ three Ngarluma/Yindjibarndi Traditional Owners to consult with NYFL members a reasonable proposal or a necessary step to allow consultation to occur. Woodside notes that consultation must be capable of reasonable and practicable discharge. Woodside's consultation efforts are informed and undertaken by personnel with significant experience in First Nations relations, including Indigenous employees. Woodside is currently finalising the employment of a Ngarluma person in an advisory position who facilitating consultation with NYFL.</p> <p>(4) Woodside has already provided NYFL with reasonable period of time to participate in consultation (as required by regulation 25 of the Environment Regulations).</p> <p>(5) Woodside assesses that the proposed Framework Agreement would be an effective mechanism to address resourcing for ongoing consultation. Woodside supports reasonable requests for resourcing.</p> <p>(6) NYFL had on several occasions informed Woodside they were working with other organisations to develop a consultation framework which would inform both Traditional Owners and Industry. Recently NYFL indicated that they are waiting on Woodside to put forward a proposal. Woodside have put the</p>	<p>Engagement with Traditional Custodians, (Appendix G.) This includes continued engagement regarding the proposed Framework Agreement which would be applied to ongoing consultation for this activity.</p>
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	<p>framework of a proposal to NYFL and expect discussions with NYFL to settle the proposal in early 2024.</p> <p>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 7.6).</p>	
<b>Local government and community representative groups or organisations</b>		
<b>Shire of Exmouth</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Shire of Exmouth for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state, and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to The Shire of Exmouth on 1 May 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Shire of Exmouth with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 1 May 2023, Woodside an email was sent to Shire of Exmouth advising of the proposed activity (Record of Consultation, reference 2.36) and provided a Consultation Information Sheet.</li> <li>• On 12 May 2023, Woodside emailed The Shire of Exmouth advising of an update to the proposed activity (Record of Consultation, reference 3.25) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
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	No additional measures or controls are required.

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	Management of Change and Revision process (see Section 7.2.5 of the EP).	
<b>Shire of Ashburton</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Shire of Ashburton for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p>		
<ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to The Shire of Ashburton on 1 May 2023 based on their functions, interests or activities.</li> <li>• Woodside has addressed and responded to the The Shire of Ashburton over a 12 month period.</li> </ul>		
<p><b>Summary of information provided and record of consultation:</b></p>		
<ul style="list-style-type: none"> <li>• On 1 May 2023, Woodside emailed the Shire of Ashburton advising of the proposed activity (Record of Consultation, reference 2.37) and provided a Consultation Information Sheet.</li> <li>• On 12 May 2023, Woodside emailed The Shire of Ashburton advising of an update to the proposed activity (Record of Consultation, reference 3.26) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> <li>• On 7 June 2023, The Shire of Ashburton emailed Woodside advising that <b>(1)</b> the Shire has no objection to the proposed activity. Notwithstanding, the Shire provided the following feedback:             <ul style="list-style-type: none"> <li>○ <b>(2)</b> Highlighted that the EMBA area includes ocean waters and two islands within the Shire’s local government area. Whilst the proposed activities do not give rise to any approval requirements under the Shire’s regulatory framework, the Shire expects that Woodside will identify, manage, and mitigate all possible impacts and risks in line with the relevant regulatory frameworks and world leading standards.</li> <li>○ <b>(3)</b> Given the potential for unplanned hydrocarbon release or discharge, the Shire requires Woodside Energy to brief the Shire’s Local and District Emergency Management Committee’s on its planned responses to such events, before any activities commence.</li> <li>○ <b>(4)</b> Would like Woodside to consider the Shire operated Pilbara Regional Waste Management Facility (PRWMF) for its decommissioning, recycling, and waste disposal purposes.</li> <li>○ <b>(5)</b> Requested to be kept informed with further updates on the proposed activity as the EP progresses.</li> </ul> </li> <li>• On 8 August 2023, Woodside emailed the Shire of Ashburton:</li> </ul>		

- Woodside confirmed that it is required to manage the environment that may be affected (EMBA) by its proposed activities to As Low As Reasonably Practicable (ALARP) and acceptable, as required by the OPGGS Environment Regulations, through the implementation of the environment plan (EP). Woodside’s proposed EPs will be submitted to NOPSEMA for acceptance.
- Woodside welcomed the opportunity to brief the Shire on its approach to managing a hydrocarbon release in the highly unlikely event this occurs. Woodside began making arrangements for a meeting and highlighted that with the number of activities it would be possible to take the opportunity to provide the Shire with an overview of a number of activities.
- Woodside notes the Shire’s interest in ongoing local content opportunities. Woodside aims to work with local business through employment and contracting opportunities, where practical, to create and build community capacity and capability. Woodside advised it has appointed a lead contractor for the decommissioning activities in another EP that are planned to take place in the Shire of Ashburton, and the lead contractor has actively engaged a range of local contractors and suppliers to support these activities. Woodside noted that it understands that one contractor is planning to sub-lease a portion of the Pilbara Waste Management Facility for use as a processing yard where decommissioned infrastructure will be de-energised, decontaminated and sorted for further processing.
- Woodside confirmed it will continue to provide the Shire with significant updates with respect to the proposed activities.

As stated, the summary above demonstrates that Woodside’s consultation with Shire of Ashburton for the purpose of regulation 25 of the Environment Regulations is complete. However as per Woodside’s ongoing commitment to consultation, engagement with Shire of Ashburton continues as summarised below;

**Ongoing consultation:**

- On 21 November 2023, Woodside presented at the Shire of Ashburton LEMC meeting and provided:
  - An overview of proposed activities relevant to the Shire including this EP;
  - An outline of the consultation approach and explanation of the EMBA as a modelling process of the broadest spatial extent an unplanned hydrocarbon release could spread based on a number of conditions;
  - Details of the oil spill response approach in the highly unlikely event of a hydrocarbon spill;
  - Woodside’s key steps when activating an oil spill response plan;
  - Shire of Ashburton thanked Woodside for presenting to the committee and no questions or concerns were raised.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
The Shire of Ashburton recognises and supports the contribution of oil and gas sector. The Shire: <b>(1)</b> Had no objections to the activity; And noted a number of expectations around: <b>(2)</b> Identifying, managing and mitigating all possible impacts and risks.	<b>(1)</b> Woodside noted the Shire of Ashburton had no objections to the activity. <b>(2)</b> Woodside confirmed it is required to manage environmental impacts and risks to the environment by the proposed activities to As Low As Reasonably Practicable (ALARP), as per the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations). <b>(3)</b> Woodside welcomed the opportunity to presenting to the Shire of Ashburton’s LEMC meeting regarding its approach to managing a	<b>(1)</b> Not required. <b>(2)</b> Existing controls considered sufficient as described in Section 6 of this EP. <b>(3, 4 ,5)</b> Not required. Woodside considers the measures and controls in the EP address the Shire of Ashburton’s functions, interests or activities.

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<p>(3) Briefing the Shire’s Local and District Emergency Management Committee.</p> <p>(4) Woodside to consider the Shire’s PRWMF for decommissioning, recycling and waste disposal purposes.</p> <p>(5) Provide updates as activities progress.</p> <p>While feedback has been received, there were no objections or claims.</p>	<p>hydrocarbon release in the highly unlikely event this occurred and would be happy to take questions regarding this EP during the presentation.</p> <p>(4) Woodside noted the Shire’s interest in ongoing local content opportunities.</p> <p>(5) Woodside confirmed it would continue to provide the Shire with significant updates with respect to the proposed activities when relevant.</p> <p>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 7.2.5 of the EP).</p>	<p>No additional measures or controls are required.</p>
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**City of Karratha**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with City of Karratha for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to the City of Karratha on 1 May 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the City of Karratha over a 12 month period.

**Summary of information provided and record of consultation:**

- On 1 May 2023, Woodside an email was sent to City of Karratha advising of the proposed activity (Record of Consultation, reference 2.38) and provided a Consultation Information Sheet.
- (1) On 2 May 2023, The City of Karratha emailed Woodside and advised that the City has no comment to make on the proposed activity.
- (1) On 4 May 2023, The Mayor of the City of Karratha additionally emailed Woodside and advised that he had reviewed the documentation and has no concerns with the proposed geo-surveys.

- On 12 May 2023, Woodside emailed The City of Karratha advising of an update to the proposed activity (Record of Consultation, reference 3.29) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 13 May 2023, Woodside emailed the City of Karratha and thanked them for their review and confirmation that there are no concerns with the proposed surveys.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>(1) The City of Karratha advised that it has no comment to make and no concerns with the proposed activity.</p> <p>While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside notes that the City of Karratha has no comments or concerns on the proposed activity.</p> <p>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 7.2.5 of the EP).</p>	<p>(1) Not required.</p> <p>Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on The City of Karratha’s functions, interests or activities.</p> <p>No additional measures or controls are required.</p>

**Exmouth Community Liaison Group**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Exmouth Community Liaison Group for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to Exmouth Community Liaison Group on 1 May 2023 based on their functions, interests or activities.
- Woodside has sent a follow up email seeking feedback on the proposed activities.
- Woodside has provided the relevant person with the opportunity to provide feedback over a 12 month period.

**Summary of information provided and record of consultation:**

- On 1 May 2023, Woodside an email was sent to Exmouth Community Liaison Group advising of the proposed activity (Record of Consultation, reference 2.39) and provided a Consultation Information Sheet.
- On 15 May 2023, Woodside emailed Exmouth Community Liaison Group advising of an update to the proposed activity (Record of Consultation, reference 3.28) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

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Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.

**Karratha Community Liaison Group (CLG)**

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with the Karratha CLG for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to the Karratha CLG on 1 May 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the Karratha CLG over a 10 month period.

**Summary of information provided and record of consultation:**

- On 1 May 2023, Woodside an email was sent to the Karratha CLG advising of the proposed activity (Record of Consultation, reference 2.40) and provided a Consultation Information Sheet.
- **(1)** On 1 May 2023, Karratha Health Care emailed Woodside to advise it had no feedback on the proposed activity.
- **(1)** On 2 and 4 May, The City of Karratha emailed Woodside to advise it had no comments or concerns about the proposed activity.
- On 17 May 2023, Woodside emailed the Karratha CLG advising of an update to the proposed activity (Record of Consultation, reference 3.29) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 29 June 2023, Woodside presented to the Karratha CLG on EP consultation requirements and provided an update on upcoming EPs, including this EP. No direct feedback was received (Record of Consultation, reference 3.44.1).
- On 29 September 2023, Woodside presented to the Karratha CLG on Woodside activities, including a status update on this EP. No feedback was received regarding this EP (Record of Consultation, reference 3.44.2).

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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<p>(1) Members of the Karratha Community Liaison Group (City of Karratha and Karratha Health Care) advised they have no comment on the proposed activity.</p> <p>While feedback has been received, there were no objections or claims.</p>	<p>(1) Woodside has noted that two members of the Karratha CLG have responded to advise that they have no feedback on the proposed activity.</p> <p>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 7.2.5 of the EP).</p>	<p>(1) Not required.</p> <p>Woodside considers the measures and controls described within this EP address the potential impact from the proposed activities on the Karratha CLG’s functions, interests or activities.</p> <p>No additional measures or controls are required.</p>
<p><b>Onslow Chamber of Commerce and Industry</b></p>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Onslow Chamber of Commerce and Industry for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to the Onslow Chamber of Commerce and Industry on 1 May 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Onslow Chamber of Commerce and Industry with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 1 May 2023, Woodside an email was sent to Onslow Chamber of Commerce an Industry advising of the proposed activity (Record of Consultation, reference 2.41) and provided a Consultation Information Sheet.</li> <li>• On 17 May 2023, Woodside emailed the Onslow Chamber of Commerce an Industry advising of an update to the proposed activity (Record of Consultation, reference 3.30) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<p><b>Summary of Feedback, Objection or Claim</b></p>	<p><b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b></p>	<p><b>Inclusion in Environment Plan</b></p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>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</p>	<p>No additional measures or controls are required.</p>

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	Management of Change and Revision process (see Section 7.2.5 of the EP).	
<b>Other non-government groups or organisations</b>		
<b>Sea Shepherd</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Western Sea Shepherd for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Sea Shepherd on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided Sea Shepherd with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside an email was sent to Sea Shepherd advising of the proposed activity (Record of Consultation, reference 2.43) and provided a Consultation Information Sheet</li> <li>• On 12 May 2023, Woodside emailed Sea Shepherd advising of an update to the proposed activity (Record of Consultation, reference 3.32) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Research institutes and local conservation groups or organisations</b>		
<b>Cape Conservation Group (CCG)</b>		

Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Cape Conservation Group for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:

- Consultation Information Sheet publicly available on the Woodside website since April 2023.
- Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.
- Consultation Information provided to CCG on 28 April 2023 based on their functions, interests or activities.
- Woodside has addressed and responded to the CCG over a 12 month period.

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to CCG advising of the proposed activity (Record of Consultation, reference 2.44) and provided a Consultation Information Sheet
- On 12 May 2023, Woodside emailed CCG advising of an update to the proposed activity (Record of Consultation, reference 3.33) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- **(1)** On 12 May 2023, CCG emailed Woodside to advise that in light of Woodside’s renewed commitment to fossil fuel extraction, it does not wish to partake in the consultation process.
- On 30 June 2023, Woodside emailed CCG and thanked it for its feedback.
  - Woodside advised that the purpose of EP consultation is to minimize harm to relevant persons and the environment from the proposed petroleum activities and to enable Woodside to consider measures, if any, that could be taken to mitigate potential adverse environmental impacts of the proposed activity.
  - Woodside advised that it notes CCG’s feedback with respect to this EP. Woodside advised that should this position change, it would welcome the opportunity to brief the CCG on Woodside’s proposed activities, including the activities proposed under this EP, to streamline consultation feedback.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p><b>(1)</b> CCG advised they do not wish to partake in the consultation process.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p><b>(1)</b> Woodside notes that CCG’s position, that it does not wish to take part in in the consultation process.</p> <p>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</p>	<p><b>(1)</b> Not required.</p> <p>No additional measures or controls are required.</p>

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	will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).	
<b>Protect Ningaloo</b>		
<p>Woodside has discharged its obligations for consultation under regulation 25 of the Environment Regulations and consultation with Protect Ningaloo for the purpose of regulation 25 is complete. Sufficient information and a reasonable period have been provided, as described in Section 5.4 of the EP. Specifically:</p> <ul style="list-style-type: none"> <li>• Consultation Information Sheet publicly available on the Woodside website since April 2023.</li> <li>• Woodside published advertisements in a national, state and relevant local newspapers on 26 April 2023 advising of the proposed activities and requesting feedback.</li> <li>• Consultation Information provided to Project Ningaloo on 28 April 2023 based on their functions, interests or activities.</li> <li>• Woodside has sent a follow up email seeking feedback on the proposed activities.</li> <li>• Woodside has provided the Project Ningaloo with the opportunity to provide feedback over a 12 month period.</li> </ul> <p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>• On 28 April 2023, Woodside an email was sent to Protect Ningaloo advising of the proposed activity (Record of Consultation, reference 2.1) and provided a Consultation Information Sheet</li> <li>• On 12 May 2023, Woodside emailed Protect Ningaloo advising of an update to the proposed activity (Record of Consultation, reference 3.2) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
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 7.2.5 of the EP).	No additional measures or controls are required.

**Table 3: Engagement Report with Persons or Organisations Assessed as Not Relevant**

<b>Commonwealth Commercial fisheries and representative bodies</b>		
<b>Australian Southern Bluefin Tuna Industry Association (ASBTIA)</b>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed the ASBTIA advising of the proposed activity (Record of Consultation, reference 2.12) and provided a Consultation Information Sheet.</li> <li>On 12 May 2023, Woodside emailed AFMA advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
No feedback, objections or claims received despite follow up.	<p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, and individual relevant licence holders.</p> <p>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 7.2.5 of the EP).</p>	<p>Woodside has assessed the relevancy of Commonwealth fisheries issues in Section 4.10.1 of this EP.</p> <p>Woodside will provide notification to AFMA, CFA, DCCEEW, WAFIC, DPIRD and fishery license holders that have the potential to be directly impacted by planned activities in the Operational Area 10 days before activity commences and following completion of activities as referenced as PS 1.4 in this EP.</p> <p>No additional measures or controls are required.</p>
<b>Tuna Australia</b>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside emailed the Tuna Australia advising of the proposed activity (Record of Consultation, reference 2.12) and provided a Consultation Information Sheet.</li> </ul>		
<p>This document is protected by copyright. No part of this document may be reproduced, adapted, transmitted, or stored in any form by any process (electronic or otherwise) without the specific written consent of Woodside. All rights are reserved.</p> <p>Controlled Ref No: SA0006AH0000008 <span style="float: right;">Revision:2</span></p> <p style="text-align: right;">Page 161 of 174</p> <p style="text-align: center;">Uncontrolled when printed. Refer to electronic version for most up to date information.</p>		



- On 1 May 2023, Tuna Australia emailed Woodside, providing their position statement for engaging with energy companies seeking consultation advice from stakeholders on environmental plans and project proposals.
  - 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.
  - **(1)** 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.
  - **(2)** The position that Tuna Australia considers itself a 'relevant person' consistent with NOPSEMA guidelines.
  - **(3)** 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.
  - **(4)** 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.
  - **(5)** 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 its members without a service agreement in place. Tuna Australia requests proponents execute its 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 its 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.
  - 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.
  - **(5)** Tuna Australia encouraged companies requiring advice from the 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 12 May 2023, Woodside emailed Tuna Australia advising of an update to the proposed activity (Record of Consultation, reference 3.13) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- **(6)** On 15 May 2023, Tuna Australia emailed Woodside to advise the area of the proposed activities is in the Western Tuna and Billfish Fishery. Tuna Australia also attached another copy of its position statement.
- 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.

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- 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:
  - **(6)** 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 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.
  - **(6)** 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 Australia on 30 May 2023, which Woodside committed to.

The summary above demonstrates that consultation is complete, however, as per Woodside's commitment to ongoing consultation, engagement has continued as summarised below:

**Ongoing consultation:**

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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 re: 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.
  - TA also agreed to provide more detail on how TA will distribute consultation materials to its membership/licence holders and the format of any report arising from the data collected.
  - Woodside committed to review TA'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 to 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.

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- 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.
  - 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 Tuna Australia 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 commented:
  - Tuna Australia did not want any changes made to Schedule 2 of its Service Agreement and if Woodside has requirements outside of what Tuna Australia provides, then this would 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 bodies of work. Tuna Australia wanted clarification on what the Annual service entails, and how the fixed priced value was arrived at.
  - Re 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 advised 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 had been changed in Item 2 of Schedule 1 and sought 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 would review and Woodside would revert as soon as possible. Woodside asked Tuna Australia to please complete the Supplier Questionnaire which was sent on 17 July 2023.

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- 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 of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
<p>Tuna Australia responded, providing Woodside their position statement for engaging with energy companies and:</p> <p><b>(1)</b> Recommended Woodside consults ABSTIA.</p> <p><b>(2)</b> Noted that Tuna Australia is relevant for this EP.</p> <p><b>(3)</b> Requested to be contacted if activities have a potential impact on vessel navigation.</p> <p><b>(4)</b> Requested a map of activity location.</p> <p><b>(5)</b> Recommended the implementation of a service agreement.</p> <p><b>(6)</b> Advised that WTBF is relevant for this EP.</p>	<p>Woodside addressed the feedback and:</p> <p><b>(1)</b> Woodside consulted ABSTIA as demonstrated in Table 3.</p> <p><b>(2, 6)</b> The fishery management area for the Western Tuna and Billfish Fishery, which Tuna Australia represents, overlaps both the Operational Area and EMBA. However, there is considered to be no potential for interaction within these areas as no recent fishing effort has occurred within or nearby to the Operational Area.</p> <p>Woodside has provided information to Tuna Australia at its discretion in line with Section 5.3.4 on AFMA advice that it expects all Commonwealth fishers who have entitlements to fish within the proposed area to be consulted, which can be through the relevant fishing industry associations.</p> <p><b>(3)</b> To manage potential interactions, Woodside has the following controls in place with regard to the Petroleum Activities Program (PAP) of this EP:</p>	<p><b>(1, 2, 4, 5, 6)</b> Not required.</p> <p><b>(3)</b> Woodside will notify Tuna Australia if the activity has 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.</p> <p>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.</p> <p>No additional measures or controls are required.</p>

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	<ul style="list-style-type: none"> <li>• Vessels adhere to regulatory requirements for navigational safety.</li> <li>• Notification to AHO 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)).</li> <li>• Establishment of temporary exclusion zones by relevant vessels which are communicated to marine users.</li> <li>• Vessels comply with regulatory requirements for the prevention of vessel collisions and safety and emergency arrangements.</li> </ul> <p>Woodside also notes the following in relation to the points raised in Tuna Australia's feedback:</p> <ul style="list-style-type: none"> <li>• Routine marine vessel discharges will be managed in accordance with legislative and regulatory requirements (e.g. marine orders)</li> <li>• Any localised impacts to water quality, sediment quality and marine fish are likely to be intermittent and highlight localised and not expected to impact any commercial fisheries in the area.</li> <li>• Seabed disturbance will managed by undertaking project specific mooring design analysis, to reduce the risk of anchor drag leading to seabed disturbance.</li> <li>• Acoustic emissions from vessels in field and survey equipment will be managed by complying with regulatory requirements (e.g. EPBC Regulations 2000 – Part 8 Division 8.1).</li> </ul>	
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	<p><b>(4)</b> The location of activities is referenced in the Consultation Information Sheet provided on 28 April 2023.</p> <p><b>(5)</b> The consultation Regulations do not require entry into service agreements in order to engage in consultation or for an EP to be complete.</p> <p>Woodside acknowledges previous feedback received from Tuna Australia with respect to separate EPs. 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.</p> <p>Woodside has consulted AFMA, DAFF - Fisheries, CFA, ASBTIA, Tuna Australia, and individual relevant licence holders.</p> <p>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 further feedback be received, it will be assessed and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).</p>	
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**Other non-government groups or organisations**

**Australian Conservation Foundation (ACF)**

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to ACF advising of the proposed activity (Record of Consultation, reference 2.41) and provided a Consultation Information Sheet
- On 12 May 2023, Woodside emailed ACF advising of an update to the proposed activity (Record of Consultation, reference 3.31) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Australian Marine Conservation Society (AMCS)</b>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to AMCS advising of the proposed activity (Record of Consultation, reference 2.42) and provided a Consultation Information Sheet</li> <li>On 12 May 2023, Woodside emailed AMCS advising of an update to the proposed activity (Record of Consultation, reference 3.31) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Conservation Council of Western Australia (CCWA)</b>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to CCWA advising of the proposed activity (Record of Consultation, reference 2.42) and provided a Consultation Information Sheet</li> </ul>		

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<ul style="list-style-type: none"> <li>On 12 May 2023, Woodside emailed CCWA advising of an update to the proposed activity (Record of Consultation, reference 3.31) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Greenpeace Australia Pacific (GAP)</b>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to GAP advising of the proposed activity (Record of Consultation, reference 2.42) and provided a Consultation Information Sheet</li> <li>On 12 May 2023, Woodside emailed GAP advising of an update to the proposed activity (Record of Consultation, reference 3.31) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
Summary of Feedback, Objection or Claim	Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 7.2.5 of the EP).	No additional measures or controls are required.
<b>Research institutes and local conservation groups or organisations</b>		
<b>University of Western Australia (UWA)</b>		

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<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to UWA advising of the proposed activity (Record of Consultation, reference 2.45) and provided a Consultation Information Sheet</li> <li>On 12 May 2023, Woodside emailed UWA advising of an update to the proposed activity (Record of Consultation, reference 3.34) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<p><b>Summary of Feedback, Objection or Claim</b></p>	<p><b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b></p>	<p><b>Inclusion in Environment Plan</b></p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>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 7.2.5 of the EP).</p>	<p>No additional measures or controls are required.</p>
<p><b>Western Australian Marine Science Institution (WAMSI)</b></p>		
<p><b>Summary of information provided and record of consultation:</b></p> <ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to WAMSI advising of the proposed activity (Record of Consultation, reference 2.46) and provided a Consultation Information Sheet</li> <li>On 12 May 2023, Woodside emailed WAMSI advising of an update to the proposed activity (Record of Consultation, reference 3.35) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.</li> </ul>		
<p><b>Summary of Feedback, Objection or Claim</b></p>	<p><b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b></p>	<p><b>Inclusion in Environment Plan</b></p>
<p>No feedback, objections or claims received despite follow up.</p>	<p>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 7.2.5 of the EP).</p>	<p>No additional measures or controls are required.</p>

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**Commonwealth Scientific and Industrial Research Organisation (CSIRO)**

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to CSIRO advising of the proposed activity (Record of Consultation, reference 2.47) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed CSIRO of an update to the proposed activity (Record of Consultation, reference 3.36) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.
- On 15 May 2023, CSIRO emailed Woodside to advise it had received Woodside's inquiry and it would aim to respond within 1-5 business days.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
Whilst feedback was received, there were no objections or claims.	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 7.2.5 of the EP).	No additional measures or controls are required.

**Australian Institute of Marine Science (AIMS)**

**Summary of information provided and record of consultation:**

- On 28 April 2023, Woodside an email was sent to AIMS advising of the proposed activity (Record of Consultation, reference 2.48) and provided a Consultation Information Sheet.
- On 12 May 2023, Woodside emailed AIMS advising of an update to the proposed activity (Record of Consultation, reference 3.37) with inclusion of Operational Area D and that there were no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D was provided.

Summary of Feedback, Objection or Claim	Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response	Inclusion in Environment Plan
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 and, where appropriate, Woodside will apply its Management of Change and Revision process (see Section 7.2.5 of the EP).	
<b>Other</b>		
<b>National Energy Resource Australia (NERA) Collaborative Seismic Environment Plan Project (CSEP) acting for a consortium of operators</b>		
<b>Summary of information provided and record of consultation:</b>		
<ul style="list-style-type: none"> <li>On 28 April 2023, Woodside an email was sent to NERA advising of the proposed activity (Record of Consultation, reference 2.22) and provided a Consultation Information Sheet.</li> <li><b>(1)</b> On 1 May 2023, NERA emailed Woodside and thanked Woodside for keeping it up to date with its projects. NERA advised that the Collaborative Seismic EP has been withdrawn and will no longer go ahead, so Woodside can remove CSEP from Woodside’s relevant person consultation.</li> <li>On 2 May 2023, Woodside emailed NERA and thanked them for the information and confirmed that Woodside will remove the CSEP from its relevant person consultation for future EPs on this basis.</li> </ul>		
<b>Summary of Feedback, Objection or Claim</b>	<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	<b>Inclusion in Environment Plan</b>
<p><b>(1)</b> NERA advised that they are no longer a relevant person for EP consultation.</p> <p>Whilst feedback has been received, there were no objections or claims.</p>	<p><b>(1)</b> Woodside has actioned NERA’s request and removed NERA as a relevant person for consultation due to the Collaborative Seismic EP being withdrawn.</p> <p>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 7.2.5 of the EP).</p>	<p><b>(1)</b> Not required.</p> <p>No additional measures or controls are required.</p>

## RECORD OF CONSULTATION

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## 1. Consultation

### 1.1 Consultation Information Sheet sent to all relevant persons



**CONSULTATION**

# INFORMATION SHEET

April 2023

## GEOPHYSICAL AND GEOTECHNICAL SURVEYS – GOODWYN A INFILL

### CARNARVON BASIN, NORTH-WEST AUSTRALIA

Woodside consults relevant persons in the course of preparing an environment plan (EP) to notify them, obtain their input and to assist Woodside to confirm current measures or identify additional measures, if any, that could be taken to lessen or avoid potential adverse effects of the proposed activity on the environment. This is the intended outcome of consultation.

Woodside's aim is to ensure the activity is carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD), by which the environmental impacts and risks of the activity are reduced to as low as reasonably practicable (ALARP) and of an acceptable level. We want relevant persons whose functions, interests or activities that may be affected by the proposed activity to have the opportunity to provide feedback on our proposed activity, in accordance with the intended outcome of consultation.

#### Overview

Woodside plans to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to existing associated infrastructure. The proposed activities are located approximately 140 km north-west of Dampier in Western Australia. These surveys will support future activities including Goodwyn Alpha (GWA) infill development and plug and abandonment (P&A) of decommissioned wells.

#### Surveys:

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities by better understanding seabed sediment characteristics in the area.

For the purpose of the Environment Plan (EP), a 'survey' is defined as a suite of geophysical and/or geotechnical activities that are all conducted in a defined survey campaign. Should a period of two months occur between individual activities, this will be classed as a new survey. Survey activities under this EP will be conducted in three Operational Areas:

- Operational Area A includes permit areas WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R;
- Operational Area B includes permit areas WA-1-L and WA-2-L; and
- Operational Area C includes permit area WA-3-L.

#### Project vessels

The surveys will be undertaken using up to two project vessels. The vessels have not yet been confirmed but will likely be a multi-purpose project survey vessel for geophysical and geotechnical surveys, and either a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment. The vessel being used to undertake any geotechnical core holes will have dynamic positioning capabilities to hold station over the activity site.

Survey activities are currently anticipated to be commenced in around Q4 of 2023. The timing and direction of the proposed activities is subject to change due to approvals, project schedule requirements, vessel availability, weather or unforeseen circumstances.

Activities are currently expected to take approximately 18 weeks to complete, inclusive of demobilisation activities and weather delays. It is anticipated that vessels will operate 24 hours per day for the duration of the activities.

#### Communications with mariners

An approximate 1,700 km<sup>2</sup> Operational Area (cumulative area encompassing Operational Areas A, B and C) will apply during geophysical and geotechnical survey activities. A 500 m safety exclusion zone will apply around the project vessels to manage vessel movements. Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Areas and remain clear of the safety exclusion zone.

#### Background

The GWA platform is located approximately 23 kilometres south-west of the North Rankin A platform and approximately 135 kilometres north-west of Karratha. Dry gas and condensate produced from the Goodwyn area reservoirs and satellite field reservoirs, are transported via a trunkline system to the Karratha Gas Plant for processing.

The proposed GWA infill development will target several fields in the vicinity of the GWA platform and existing infrastructure to enable tie-in of potential future wells. If infill is progressed, new development wells will be drilled and hydrocarbons will be transported via the existing trunkline to be processed at the Karratha Gas Plant.

Woodside is planning to decommission wells in proximity of the North Rankin Complex and Angel Platform, surveys are required to support the planned P&A operations.

The GWA, North Rankin and Angel platforms, associated reservoirs and facilities are part of the North West Shelf project.

#### Assessment

Woodside has undertaken an assessment to identify potential risks to the marine environment, cultural heritage, other activities and relevant persons, considering timing, duration, location and potential impacts arising from the planned activities. A number of mitigation and management measures will be implemented and are summarised in **Table 2**. Further details will be provided in the EP.

In preparing the EP, 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.

#### Joint Venture

Woodside Energy Ltd is operator on behalf of the North West Shelf joint venture, consisting of Woodside Energy (North West Shelf) Pty Ltd, Woodside Energy Ltd, CNOOC NWS Private Limited, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIMI) Pty Ltd, Shell Australia Pty Ltd and Woodside Energy Ltd.

**We welcome your feedback by 26 May 2023.**

Geophysical and Geotechnical Surveys – Goodwyn A Infill | April 2023

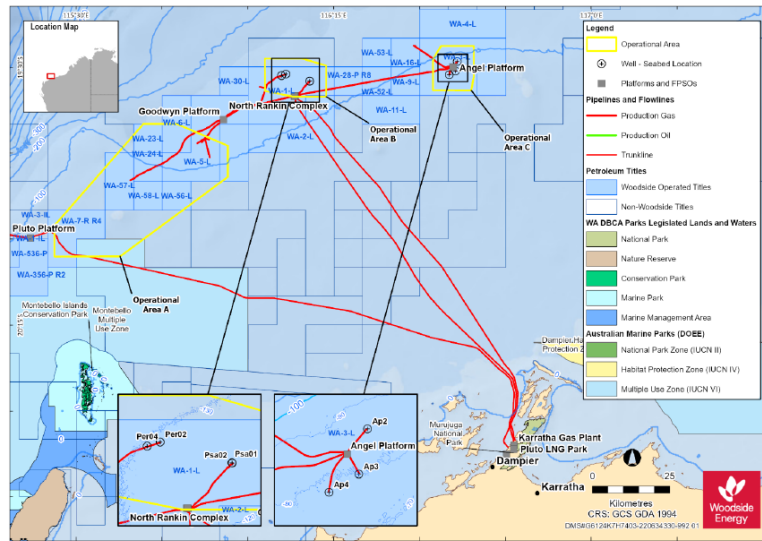


Figure 1 Petroleum Activity Program Operational Areas

Table 1. Activity summary

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	A	B	C
Summary	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three operational areas to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>Multibeam Echo Sounder</li> <li>Side Scan Sonar</li> <li>Magnetometer</li> <li>Sub-bottom profiler</li> </ul> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>Box cores / grab sample</li> <li>Piston / Gravity cores</li> <li>Drilled core holes</li> <li>Cone Penetrometer Tests</li> </ul>		
Permit Areas	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
Approximate locations	-115.67° E 19.85° S	-116.13° E 19.54° S	-116.60° E 19.50° S
Approximate water depth	-20 - 190 m	-120 - 140 m	-60 - 125 m
Distance to nearest town	-123 km north west of Dampier	-129 km northwest of Dampier	-120 km northwest of Dampier
Distance to nearest marine park/nature reserve	-32 km north of the Montebello Islands Operational area A is within the Montebello Marine Park – Multiple Use Zone (CwIth)	-103 km north of the Montebello Islands	-135 km north of the Montebello Islands
Vessels	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels maybe supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable)		
Operational Areas and Exclusion zones	<ul style="list-style-type: none"> <li>Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone</li> </ul>		



**Environment That May Be Affected (EMBA)**

The environment that may be affected (EMBA) is the largest spatial extent where the Petroleum Activities Program (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 hydrocarbons to the environment as a result of a 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.

For this EP Woodside has defined the EMBA by combining the potential spatial extent of surface and in-water (dissolved and entrained) hydrocarbons, resulting from a worst-case credible spill from a vessel collision.

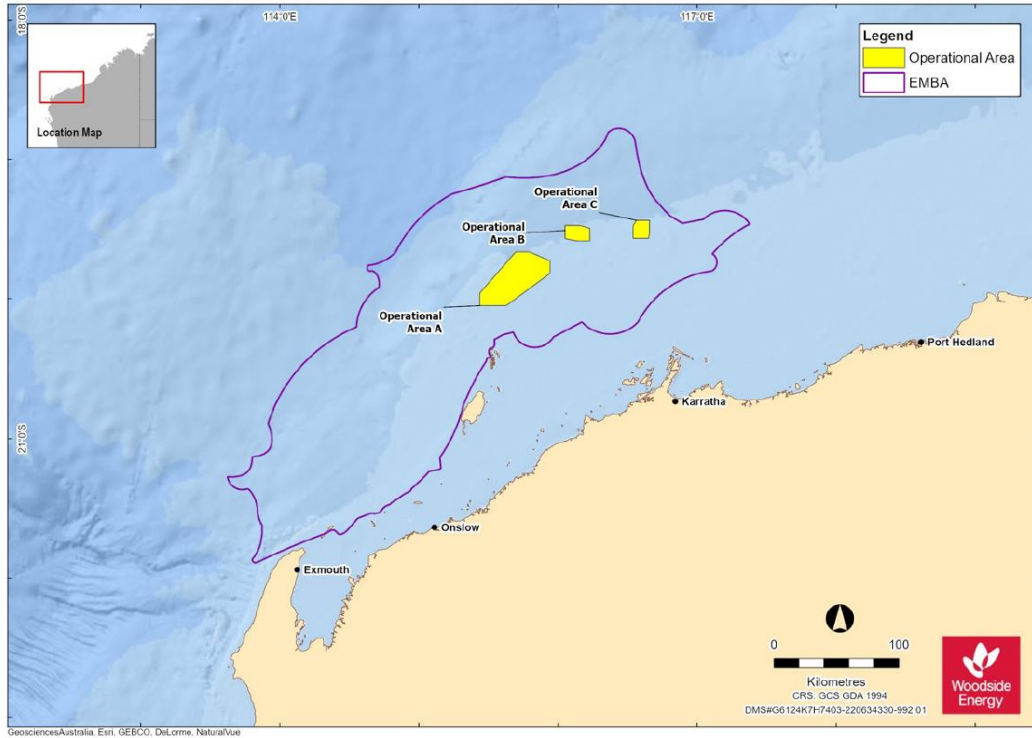


Figure 2 Environment that May Be Affected by the Goodwyn Alpha infill survey activities

**Mitigation and Management Measures**

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from the activities considering timing, duration, location.

A number of mitigation and management measures for the geotechnical and geophysical surveys are outlined in **Table 3**. Further details will be provided in the EP.

**Table 3. Summary of key risks and/or impacts and management measures during geotechnical and geophysical surveys**

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
<b>Planned</b>			
Physical presence and interactions with other marine users	<ul style="list-style-type: none"> <li>Two vessel types will be used to conduct the activity.</li> <li>The physical presence and movement of project vessels within the Operational Areas has the potential to displace other marine users.</li> <li>The activity may not be executed as a single survey meaning vessels may occur at any time during approval period of the EP.</li> </ul>	<ul style="list-style-type: none"> <li>Other vessels in the Operational Areas, which may include commercial fishing and shipping may experience temporary and localised displacement during the activity.</li> <li>Potential impacts to commercial fisheries will be limited to temporary displacement with no lasting effect, as the duration of the activity is short.</li> <li>Operational Area A overlaps the Montebello Australian Marine Park (AMP) and may result in potential impacts to recreational and tourism activities. Impacts are expected to be limited to temporary displacement while activity occurs.</li> <li>Operational Area A overlaps an existing shipping fairway and may result in temporary, slight modification of a ships course to navigate past a project vessel.</li> </ul>	<ul style="list-style-type: none"> <li>Vessels adhere to the regulatory requirements for navigational safety.</li> <li>Notify relevant government departments, fishing industry representative bodies, licence holders and tourism operators of activities prior to commencement and on completion of activities.</li> <li>Notify the Australian Hydrographic Office (AHO) prior to commencement of the activity to enable them to update maritime charts ensuring marine users are aware of the activity.</li> <li>Consult with relevant persons so they are informed of the proposed activities.</li> </ul>
Routine acoustic emissions: project vessels	<ul style="list-style-type: none"> <li>Project vessels may generate noise both in the air and underwater due to the operation of thrusters, engines, propellers, and on-board machinery etc.</li> <li>The vessels will use Dynamic Positioning (DP) where propellers and thrusters are used to hold position.</li> </ul>	<ul style="list-style-type: none"> <li>Elevated underwater noise may affect marine fauna, including marine mammals (cetaceans), turtles, fish, oceanic seabirds and/or migratory seabirds in three main ways:                             <ol style="list-style-type: none"> <li>By causing direct physical effects, including injury or hearing impairment. Hearing impairment may be temporary threshold shift , or permanent (PTS), with PTS generally considered to represent a form of injury.</li> <li>Through disturbance leading to behavioural changes or displacement from important areas. The occurrence and intensity of disturbance is highly variable and depends on a range of factors relating to the animal and situation.</li> <li>By masking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey).</li> </ol> </li> <li>Marine turtles within the Operational Areas are expected to be transient and behavioural impacts are expected to be short term and localised. It is not credible that permanent and temporary thresholds would be exceeded for marine turtles.</li> <li>Potential impacts from acoustic emissions on fish, sharks and rays are likely to be restricted to localised and temporary avoidance behaviour.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for interactions with marine fauna to prevent adverse interactions.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Routine acoustic emissions: geophysical and geotechnical surveys	<ul style="list-style-type: none"> <li>The geophysical survey instruments that may be used include sub-bottom profiler, multibeam echo sounder, side-scan sonar and ultra short baseline positioning system. These instruments will generate underwater noise.</li> <li>The key geotechnical survey sound sources include the core penetration tests, geotechnical boreholes, box core sampling and piston/push sampling undertaken at the seabed.</li> </ul>	<ul style="list-style-type: none"> <li>Elevated underwater noise can affect marine fauna, including marine mammals (cetaceans), turtles and fish in three main ways (see above).</li> <li>The sound generated by the various geophysical and geotechnical survey instruments may result in localised and temporary behavioural changes to marine fauna within tens or hundreds of metres. The extent of such effects is not expected to be materially greater than the area where disturbance may occur because of vessel noise.</li> <li>The behavioural effects will not have a lasting impact on protected species, ecosystems, and functions.</li> </ul>	<ul style="list-style-type: none"> <li>Implement Environment Protection and Biodiversity Conservation Act (EPBC) regulations and guidance for interactions with marine fauna.</li> </ul>
Physical presence – seabed disturbance from geotechnical and geophysical surveys	<ul style="list-style-type: none"> <li>Seabed disturbance may result from Geotechnical including penetration testing and coring.</li> </ul>	<ul style="list-style-type: none"> <li>Habitat modification as a result of seabed disturbance could occur within a localised radius of surveyed area. Near this area, it is possible that benthic communities may be reduced or altered, leading to a highly localised impact to epifauna and infauna benthic communities present.</li> <li>Operational Areas overlap the Ancient Coastline at 125m depth contour Key Ecological Feature (KEF) and one Operational Area C overlaps Glomar Shoal KEF. Any potential seabed disturbances in this area will be highly localised and short-term.</li> </ul>	<ul style="list-style-type: none"> <li>No routine anchoring will be implemented.</li> <li>Continuous monitoring of inventory deployed during field activity and tracking of equipment removal during activity.</li> <li>Geotechnical survey activities will not be undertaken outside of the Operational Areas. Underwater Cultural Heritage desktop assessment of the Operational Areas by maritime archaeologist using available public and Woodside data prior to commencement of activities. Outcomes and recommendations will be assessed and further activities and/or mitigations implemented where appropriate.</li> <li>Comply with regulatory requirements for Underwater Cultural Heritage</li> </ul>
Atmospheric emissions and greenhouse gas emissions	<ul style="list-style-type: none"> <li>Atmospheric emissions and greenhouse gases will be generated by the project vessels from internal combustion engines and incineration activities.</li> </ul>	<ul style="list-style-type: none"> <li>Emissions from vessels could result in temporary, localised reductions in air quality in the immediate vicinity.</li> <li>Given the offshore location of the activity, and the low volumes of atmospheric emission which will be generated, biodiversity, ecological integrity, social amenities, and human health will not be impacted and any potential impact to air quality is slight.</li> <li>Given the nature and scale of GHG emissions from vessel fuel usage for this activity, the potential GHG impact and risk from this activity is considered negligible.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for marine air pollution and GHG emissions reporting.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Routine and non-routine discharges – project vessels	<ul style="list-style-type: none"> <li>Sewage, greywater, and putrescible waste will be discharged from project vessels.</li> <li>Bilge water, deck drainage, brine and cooling water will also be discharged.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>No significant impacts are expected to water quality from planned discharges because of the minor quantities involved, the expected localised mixing zone and high level of dilution into the open water marine environment of the Operational Areas.</li> <li>Similarly, although some marine fauna may transit the Operational Areas, it is anticipated that any potential for impact remains low due to the localised nature of discharges and rapid dilution.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for marine discharges.</li> <li>Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints and approved through the Woodside chemical assessment process.</li> </ul>
Routine and non-routine discharges – drill cuttings and drilling fluids	<ul style="list-style-type: none"> <li>Drill cuttings and fluids will be discharged at the borehole location for geotechnical surveys.</li> <li>Drilling fluid will consist primarily of seawater and may include low-toxicity additives.</li> </ul>	<ul style="list-style-type: none"> <li>Coring during geotechnical surveys involves routine and non-routine discharges that can result in turbidity in the water column. Reduction in water quality will be temporary (limited to drill cuttings and drilling fluid discharges during drilling) and subject to rapid dispersion and dilution by prevailing currents.</li> <li>Given the minor quantities of routine and non-routine planned discharges, short discharge durations and the low toxicity and high dispersion in the open, offshore environment, any potential impacts on the marine environment are expected to be localised.</li> </ul>	<ul style="list-style-type: none"> <li>All chemicals intended or likely to be discharged into the marine environment reduced to as low as reasonably practical (ALARP) using Woodside's chemical assessment process.</li> </ul>
Light emissions	<ul style="list-style-type: none"> <li>Project vessels will use external lighting to navigate and conduct safe operations at night.</li> <li>Vessel lighting will also be used to communicate the vessel's presence to other marine users (i.e. navigation/warning lights).</li> <li>Once the activities are completed, no permanent ongoing project lighting will occur in these locations.</li> </ul>	<ul style="list-style-type: none"> <li>Light emissions may affect fauna (such as marine turtles and birds) in two main ways:                             <ol style="list-style-type: none"> <li>Behaviour: artificial lighting has the potential to create a constant level of light at night that can override natural levels and cycles.</li> <li>Orientation: If an artificial light source is brighter than a natural source, the artificial light may override natural cues, leading to disorientation.</li> </ol> </li> <li>Marine turtles may occur in the Operational Areas, noting Operational Area A overlaps the Flatback turtle interesting BIA and Interesting Habitat Critical to the Survival of Flatback Turtle. Light emissions to marine turtles from project vessels are unlikely to result in more than localised behavioural disturbance to individuals transiting the Operational Areas, with no lasting effect to the species.</li> <li>The Operational Areas may be occasionally visited by seabirds and overlaps the Wedgetail Shearwater breeding and foraging BIAs. Artificial lighting is unlikely to result in more than localised behavioural disturbance to isolated individuals, with no significant impact to seabird foraging.</li> <li>Lighting from the presence of the vessels may result in the localised aggregation of fish below the vessels. These aggregations of fish are considered localised and temporary and any long-term changes to fish species composition or abundance is considered highly unlikely.</li> </ul>	<ul style="list-style-type: none"> <li>Lighting will be limited to the minimum required for navigation and safe operational requirements, with the exception of emergency events.</li> <li>Implementation of the Woodside Seabird Management Plan.</li> </ul>



Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
<b>Unplanned</b>			
Unplanned hydrocarbon release – vessel collision	<ul style="list-style-type: none"> <li>Project vessels will use marine diesel fuel, meaning a vessel collision involving a third-party during the activity may potentially result in the release of marine diesel.</li> <li>For a collision to result in the worst-case scenario diesel release, several factors must occur as follows:</li> <li>Identified causes of vessel interaction must result in a collision,</li> <li>The collision has enough force to penetrate the vessel hull and in the exact location of the fuel tank,</li> <li>The fuel tank must be full or at least of volume which is higher than the point of penetration.</li> </ul>	<ul style="list-style-type: none"> <li>In the highly unlikely event of a vessel collision causing a release of hydrocarbons, impacts to water quality and marine ecosystems could occur.</li> <li>Modelling of a surface release of marine diesel at the closest point to the Montebello Islands within ~200 m from Operational Area A was used to understand potential impacts.</li> <li>Marine diesel is a relatively volatile, non-persistent nature hydrocarbon with up to 24% evaporating within the first 24 hours.</li> <li>Potential impacts across the whole EMBA were assessed including receptors such as plankton, fish, marine turtles, marine mammals, seabirds and migratory shorebirds, marine sediment, marine primary producers, tourism, recreation, commercial fisheries, commercial shipping and cultural heritage.</li> <li>Considering receptor sensitivity, the receptors were rated as having a potential consequence level of minor or less (slight or negligible).</li> </ul>	<p><b>Preventing Vessel Collision</b></p> <ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of vessel collisions and safety and emergency arrangements.</li> <li>Consult with relevant persons so that other marine users are informed and aware, reducing the likelihood of a collision.</li> <li>Develop SIMOPS if more than one Woodside contracted vessel is operating in the Operational Areas at any time.</li> </ul> <p><b>Spill response arrangements:</b></p> <ul style="list-style-type: none"> <li>Arrangements supporting the Oil Pollution Emergency Preparation document (OPEP) will be tested to ensure the OPEP can be implemented as planned.</li> <li>Emergency response activities would be implemented in line with the OPEP.</li> </ul>
Unplanned discharge –deck and subsea spills	<ul style="list-style-type: none"> <li>Accidental discharge to the ocean of hydrocarbons/ chemicals from project vessel's deck activities and equipment.</li> <li>Subsea release of hydrocarbons, drilling fluids or hydraulic fluid from geotechnical and geophysical survey equipment.</li> </ul>	<p><b>Chemicals/hydrocarbons from project vessels</b></p> <ul style="list-style-type: none"> <li>Unplanned discharges of chemicals and hydrocarbons may decrease the water quality in the immediate vicinity of the release. Only small volumes (&lt;100 L) would be expected to potentially occur, resulting in very short-term impacts to water quality, and limited to the immediate release location.</li> <li>No significant impacts from the accidental discharges described would be anticipated due to the offshore/open water locations, low sensitivity of surrounding water quality and high level of dilution into the open water marine environment of the Operational Areas.</li> </ul> <p><b>Subsea release from geotechnical and geophysical equipment</b></p> <ul style="list-style-type: none"> <li>Project vessels will place equipment on the seabed during the surveys which may contain relatively small volumes (about 5-10 L) of hydraulic fluids, which in an event may be released.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of marine pollution.</li> <li>Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints and approved through the Woodside chemical assessment process.</li> <li>Liquid chemical and fuel storage areas are bunded or secondarily contained when they are not being handled/moved temporarily.</li> <li>Spill kits positioned in high-risk locations around the vessels (near potential spill points such as transfer stations).</li> </ul>
Unplanned discharge of solid hazardous/non-hazardous solid waste/equipment	<ul style="list-style-type: none"> <li>Accidental, unplanned loss of hazardous or non-hazardous solid wastes/equipment to the marine environment may occur if dropped or blown overboard.</li> </ul>	<ul style="list-style-type: none"> <li>The potential impacts of hazardous or non-hazardous solid wastes and equipment accidentally discharged to the marine environment include contamination of the environment as well as secondary impacts relating to potential contact of marine fauna with wastes.</li> <li>The temporary or permanent loss of waste materials/equipment into the marine environment is not likely to have a significant environmental impact, based on the location of the activity, the types, size and frequency of wastes that could occur, and species present.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of marine pollution and handling of hazardous wastes.</li> <li>Implement a Vessel Waste Management Plan.</li> <li>Solid waste/equipment dropped to the marine environment will be recovered where safe and practicable to do so.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Physical presence – Dropped objects and equipment loss	<ul style="list-style-type: none"> <li>Accidental objects dropped to from project vessels may result in seabed disturbance.</li> <li>Accidental loss of significant geophysical or geotechnical equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Unplanned seabed disturbance may result in localised changes to water and sediment quality or a localised temporary impact to benthic communities.</li> <li>Operational Areas overlap Ancient Coastline at 125 m depth contour Key Ecological Feature (KEF) and one Operational Area C overlaps Glomar Shoal KEF. Any potential seabed disturbances in this area will be highly localised and short-term.</li> </ul>	<ul style="list-style-type: none"> <li>Project vessel inductions include control measures for dropped object prevention.</li> <li>Apply safe work procedures to prevent dropped objects from vessels and during deployment and retrieval of equipment.</li> <li>Dropped objects and geophysical/geotechnical equipment to be recovered and relocated where safe and practicable to do so.</li> </ul>
Unplanned interaction with marine fauna	<ul style="list-style-type: none"> <li>Accidental collision between project vessels and protected marine fauna.</li> <li>The factors that contribute 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.</li> </ul>	<ul style="list-style-type: none"> <li>Vessel movements have the potential to result in accidental collisions between the vessel (hull and propellers) and marine fauna.</li> <li>The risk of vessel collision with marine fauna is present year-round but is seasonally elevated during migration periods and within migration and foraging BIAs. Given the short duration of activities within the Operational Areas, and the slow speeds at which project vessels operate, collisions with cetaceans are considered highly unlikely.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for interactions with marine fauna to reduce the likelihood of a collision occurring.</li> <li>Implement EPBC guidance for turtles and whale sharks.</li> </ul>
Accidental introduction of invasive marine species (IMS)	<ul style="list-style-type: none"> <li>Vessels transiting to the Operational Areas may be subject to marine fouling whereby organisms attach to the vessel hull.</li> <li>Organisms may also be drawn into ballast tanks during onboarding of ballast water.</li> <li>Submersible equipment may be subject to marine fouling (potentially from outside region/Australian waters).</li> </ul>	<ul style="list-style-type: none"> <li>The deeper offshore open waters of the Operational Area are not conducive to the settlement and establishment of invasive marine species (IMS)</li> <li>There are a number of shoals in shallower waters (20 – 40 m) of Operational Area A that may present an increased risk of IMS establishment.</li> <li>Given the existing Woodside and legislative controls in place, that minimise the introduction of IMS, it is considered that the likelihood for IMS to become established is remote.</li> </ul>	<ul style="list-style-type: none"> <li>Ballast water and biofouling will be managed according to regulatory requirements, including the Australian Ballast Water Management Requirements, and the Australian Biofouling Management Requirements, as applicable.</li> <li>Woodside's IMS risk assessment process will be applied to project vessels and immersible equipment entering the Operational Areas.</li> </ul>

**Feedback**

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

If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information, please contact Woodside before **26 May 2023** via:

**E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)**  
**Toll free: 1800 442 977**

You can subscribe on our website to receive Consultation Information Sheets for proposed activities: [www.woodside.com/sustainability/consultation-activities](http://www.woodside.com/sustainability/consultation-activities).

Please note that stakeholder feedback will be communicated to the 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.

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 NOPSEMA for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)* or the *Petroleum (Submerged Lands) (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 EP in order for this information to remain confidential to NOPSEMA.

**2. Email/Letters sent to the following relevant stakeholders (28 April 2023 - 1 May 2023)**

- 2.1 Email sent to Australian Border Force (ABF), Department of Industry, Science and Resources (DISR), Department of Transport (DoT), Australian Petroleum Production and Exploration Association (APPEA), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Mines, Industry Regulation and Safety (DMIRS), Protect Ningaloo (28 April 2023)**

Dear Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C

<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S		
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m		
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier		
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands		
<b>Schedule</b>	Q4 2023				
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.				
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).				
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>				

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.



Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

## 2.2 Email sent to Australian Fisheries Management Plan (AFMA) (28 April 2023)

Dear AFMA

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
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<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment						

	(dynamically positioning capable).
<b>Schedule</b>	Q4 2023
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>
<b>Relevant Fisheries:</b>	<p><b><u>Commonwealth fisheries</u></b></p> <p><b>Operational Area:</b> None</p> <p><b>EMBA:</b> North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery.</p>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.3 Email sent to Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) – Marine Safety (28 April 2023)**

Dear AHO / AMSA

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**Permit Areas**

<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). **A shipping lane map is also attached.** You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				



<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>		
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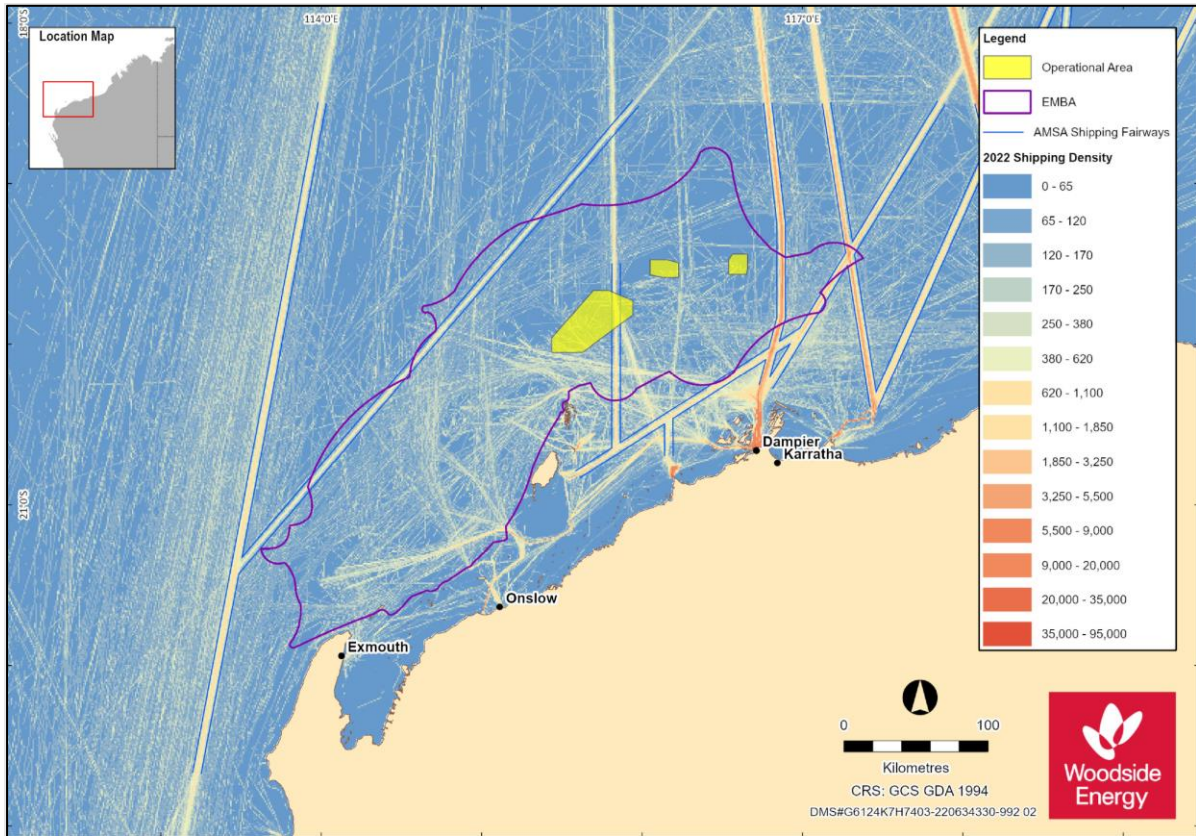
**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

### 2.3.1 Shipping lane map sent to AHO and AMSA (28 April 2023)



### 2.4 Email sent to Australian Maritime Safety Authority (AMSA) – Marine Pollution (28 April 2023)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a</p>						

	vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.5 Email sent to Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries and Biosecurity (28 April 2023)**

Dear DAFF – Biosecurity and Fisheries

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L

**Operational Area C** WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). A shipping lane map is also attached. You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>			
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations for commissioned wells. The following survey activities will be undertaken under this EP.		
	<b>Geophysical Surveys</b> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<b>Geotechnical Surveys</b> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S



<b>Locations</b>			
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		
<b>Relevant Fisheries:</b>	<p><b><u>Commonwealth fisheries</u></b>  <b>Operational Area:</b> None  <b>EMBA:</b> North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery.</p>		

**Biosecurity:**

With respect to the biosecurity matters, please note the following information below:

**Environment description:**

The Operational Areas (Operational Area A, B and C) lie on the outer continental shelf in waters approximately 20 to 190 deep. The bathymetry within the Operational Areas is generally flat, which is consistent with the broader NWS Province shelf region. There are a number of shoals in shallower waters (~20 – 40 m) of Operational Area A. The seabed has a gentle seaward gradient extending to a steep distal slope occurring between 200 to 300 km offshore in water depths of around 200 m. The continental slope then descends more rapidly from the shelf edge to depths greater than 1,000 m to the north-west.

**Potential IMS risk****Potential IMS risk**

Accidental introduction and establishment of invasive marine species

Accidental introduction and establishment of invasive marine species

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

## 2.6 Email sent to Department of Defence (DoD) (28 April 2023)

Dear Department of Defence

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). **A defence zone map is also attached.** You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>						
<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>						
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>						
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>						

**Feedback:**

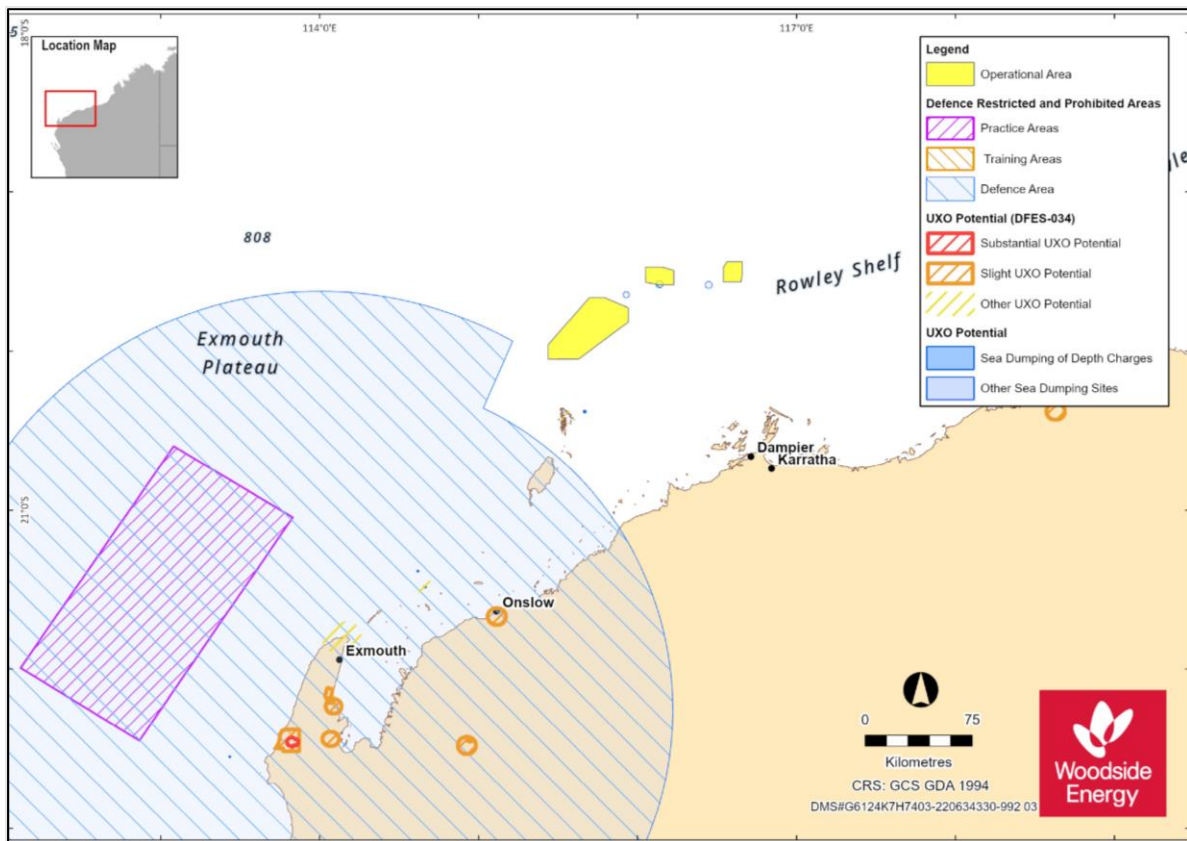
If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.



Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

## 2.6.1 Defence zone map sent to Department of Defence (DoD) (28 April 2023)



## 2.7 Email sent to Department of Primary Industries and Regional Development (DPIRD) (28 April 2023)

Dear [redacted] and [redacted]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations		

	for commissioned wells. The following survey activities will be undertaken under this EP.		
	<b>Geophysical Surveys</b> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>		<b>Geotechnical Surveys</b> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		
<b>Relevant Fisheries:</b>	<p><b>State fisheries</b></p> <p><b>Operational Area:</b> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery.</p> <p><b>EMBA:</b> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, and Nickol Bay</p>		

	Prawn Managed Fishery.
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.8 Email sent to Department of Planning, Lands and Heritage (DPLH) (28 April 2023)**

Dear DPLH

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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 is a list of**

**shipwrecks in State waters within the EMBA.** You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>					
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>		
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S		
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m		
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier		
<b>Schedule</b>	Q4 2023				
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.				
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.8.1 List of State Shipwrecks sent to DPLH (28 April 2023)**

WA Historical Shipwrecks 0998							
NAME	COMMENTS	TYPE	UNIQUENO	WHEN_LOST	WHERE_LOST	LON	LAT
Benan		Ship		30329 1886/12/23	Point Cloates	113.6733	-22.7427
Manfred		Barque		30573 1879/01/24	Lacepedes	122.1283	-16.8567
Perth SS	Formerly the Penola SS	Steamship		30811 1887/09/17	Point Cloates	113.6403	-22.6942
Rapid		Ship		30859 1811/01/07	Ningaloo Reef	113.6833	-22.7333
Stefano	Found in 1997	Brig		31002 1875/10/27	Point Cloates	113.7195	-22.8288
Trial	First European wreck on the Australian coast	Ship		31072 1622/05/24	Trial Rocks	115.3737	-20.2872
Zvir SS	Accoding to Cards 2103 Tonn	Steamship		30715 11/27/1902	Point Cloates	113.626	-22.6092
Mildura SS	Most of the cattle perished	Steamship		31049 3/12/1907	North-West Cap	114.1667	-21.7857
Fin SS		Steamship		30619 2/15/1923	Point Cloates, F	113.6268	-22.6488
Lady Ann	Check Lats and Longs. Oil rig tender	Ship (non-sail)		30606 9/18/1982	24 miles north c	114.2	-21.4

**2.9 Email sent to Department of Climate Change, Energy, the Environment and Water (DCCEE) (28 April 2023)**

Dear DCCEE

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R



<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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 is a list of shipwrecks in Commonwealth waters within the EMBA.** You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table> <thead> <tr> <th><b>Geophysical Surveys</b></th> <th><b>Geotechnical Surveys</b></th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </tbody> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						

<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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).

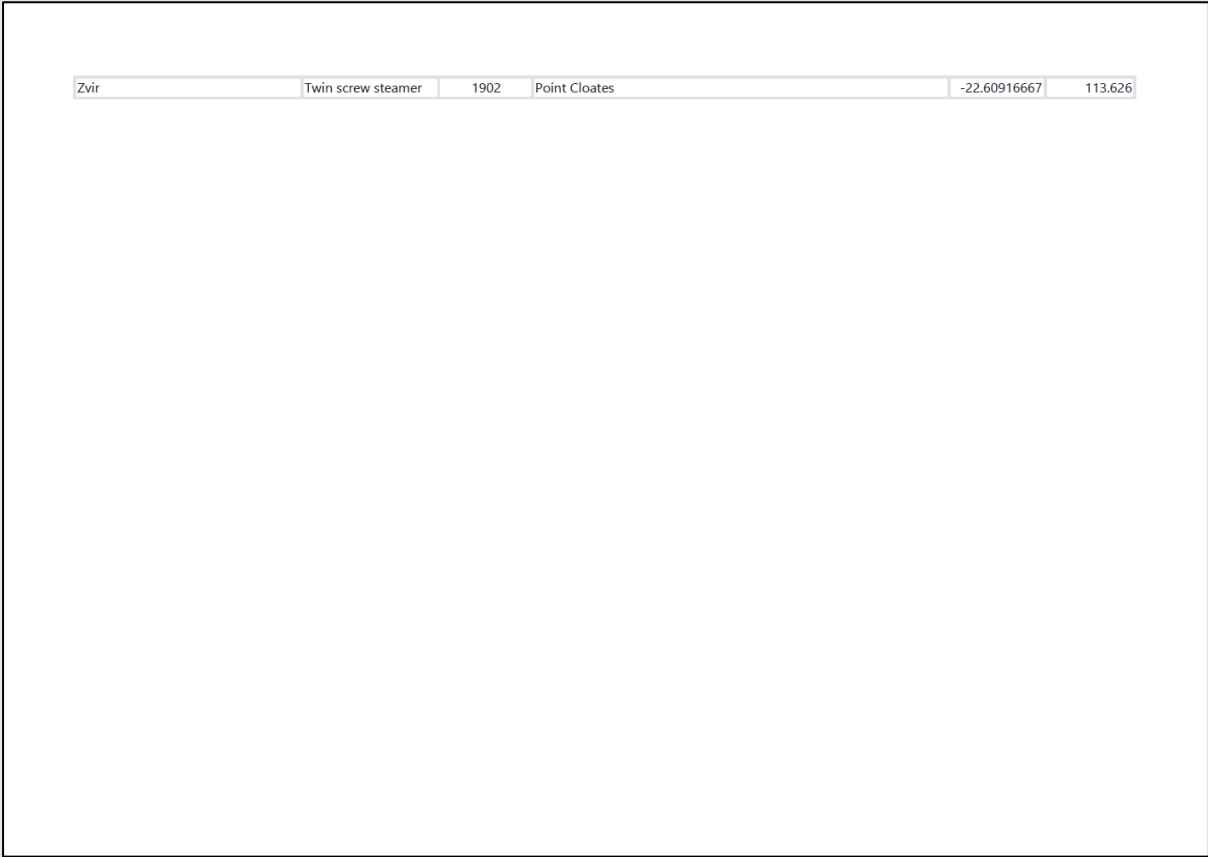
Please let us know if your feedback for this activity is sensitive and we will make this known to NOPSEMA upon submission of the Environment Plan in order for this information to remain confidential to NOPSEMA.

**2.9.1 List of Commonwealth Shipwrecks sent to DCCEEW (28 April 2023)**



Australia National Shipwreck Database					
VESSEL_NAM	VESSEL_T_1	YEAR_WRECK	WHERE_LOST	LATITUDE	LONGITUDE
Adalia	Unknown	1880	Near Mangrove Passage	-21.53	115.436945
Agnes	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Beatrice	Sailing vessel	1899	Off North-West Cape	-21.61666667	113.9833333
Bell	Sailing vessel	1893	Exmouth	-21.75	114.0833333
Benan	Sailing vessel	1888	Point Cloates	-22.74151667	113.6745
Bertha	Sailing vessel	1874	Reef off Point Cloates	-22.55	113.5
Chofuku Maru	Twin screw steamer	1931	Point Cloates	-22.51755	113.6629833
Cock Of The North	Sailing vessel	1879	Point Cloates	-22.55	113.5
Curlew	Sailing vessel	1911	At Onslow, Monte Bellos Group	-20	115.1666667
Dampier	Trawler		Enderby Island, Dampier Archipelago	-20.52333333	116.2366667
Don Joseph	Sailing vessel	1899	6.5 Kilometres North of Point Cloates	-22.61666667	113.6
Elizabeth	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Ellen	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Emlyn Castle	Unknown	1960		-21.78472167	114.165
Fin	Single screw steamer	1923	Point Cloates, Fraser Island	-22.6476	113.6282667
Florence	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
G.G.S.	Sailing vessel	1883	Pt Cloates	-22.55	113.5
Gem	Sailing vessel	1893	North West Cape	-21.61666667	113.9833333
Hawk	Sailing vessel		Around 55 kilometres south of the Cape at Carbaddaman Passage	-22.45	113.73333
Jane Bay One Unidentified	Unknown		Jane Bay	-22.732317	113.73212
Jane Bay Two Unidentified			Jane Bay, Point Cloates	-22.73785	113.739983
Kadna	Unknown	1902		1902 -17.96166667	112.2368833
Kapala	Unknown	1964	Exmouth Gulf	-21.75	114.0833333
Lady Ann	Sailing vessel	1982	24 miles north of NW Cape	-21.4	114.2
Lamareaux	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Leave	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Lily Of The Lake	Sailing vessel	1875	Exmouth Gulf	-21.75	114.0833333
Mabel	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Manfred	Sailing vessel	1879	Lacepedes	-16.852652	122.127839
Maratta	Unknown	1905		-20.72783333	115.4261167
Marietta	Unknown	1905	Barrow Island	-20	115.1666667
Marutta	Unknown	1905		-20.72783333	115.4261667

Mary B	Unknown	1920		-20.01916667	118.81
Mauds Landing				-23.113944	113.775461
McCormack		1989	N.E. tip of Eaglehawk Island West of Dampier,	-20.13666667	115.9533333
McDermott Derrick Barge No 20	Barge	1989	N.E. tip of Eaglehawk Island, Dampier Archipelago	-20.13666667	115.9533333
Mildura	Twin screw steamer	1907	North-West Cape	-21.784092	114.167735
Nellie	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Occator	Sailing vessel	1856	Around 55 kilometres south of the Cape at Carbaddaman Passage	-22.41666667	113.6833333
Olive	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Onslow Jetty				-21.631127	115.108788
Parks Lugger	Sailing vessel		Hermit Island, Montebello Islands	-20.477082	115.528518
Pearl	Sailing vessel	1896	Exmouth Gulf, Meda Creek	-21.75	114.0833333
Perentie	Unknown	1976	Barrow Island	-20.72783333	115.4261667
Perth	Twin screw steamer	1887	Point Cloates	-22.69246667	113.6422667
Plym HMS	Frigate	1952		-20.40346667	115.5658333
Queen	Sailing vessel	1891	Off Point Cloates	-22.55	113.5
Rapid	Sailing vessel	1811	Ningaloo Reef	-22.739438	113.692643
Rose	Sailing vessel	1908	Ashburton	-21.58333333	114.8333333
Ruby	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
S.S.S.	Unknown	1901	Off Point Cloates	-22.65	113.5833333
Sea Queen	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Shunsei Maru	Unknown	1931	Carbaddaman Passage, north of Point Cloates	-22.41666667	113.6833333
Smuggler	Sailing vessel	1893	Exmouth Gulf	-21.75	114.0833333
Stefano	Sailing vessel	1875	Point Cloates	-22.82688333	113.7211833
Strathmore	Sailing vessel	1870	Point Cloates	-22.55	113.5
Tanami	Sailing vessel		Trial Rocks	-20.28333	115.36666
Trial	Sailing vessel	1622	Trial Rocks	-20.28598333	115.3752333
Tropic Queen		1975		-20.43333333	115.5008333
Unidentified Lugger	Unknown	1893	Exmouth Gulf	-21.75	114.0833333
Veronica	Sailing vessel	1928	Sunday Island, Exmouth Gulf	-21.68333333	114.3833333
Vianen	Sailing vessel	1628	Barrow Island Area	-20	115.1666667
Wild Wave	Sailing vessel	1875	Exmouth Gulf	-21.75	114.0833333
Wild Wave ( China )	Sailing vessel	1873	Monte Bello Island	-20	115.1666667
Wyndham	Sailing vessel	1910	Point Cloates	-22.55	113.5



**2.10 Email sent to Director of National Parks (DNP) (28 April 2023)**

Dear Director of National Parks

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

We note Australian Government Guidance on consultation activities and confirm that:

- Operational Area A is within the Montebello Marine Park – Multi User Zone.
  - The activity will comply with the relevant conditions of the class approval.
  - Impacts are expected to be limited to temporary displacement while activity occurs
- Operational Areas B and C are outside the boundaries of any proclaimed Australian Marine Parks (AMP).
- We have assessed potential risks to AMPs in the development of the proposed EP and believe that there are no credible risks as part of planned activities that have potential to impact the values of the Marine Parks.
- The worst-case credible spill scenario assessed in this EP is the remote likelihood event of a vessel collision resulting a spill of marine diesel to the marine environment. Through review of hydrocarbon spill modelling, and with consideration of a 50 ppb dissolved and 100 ppb entrained hydrocarbon threshold, the following AMPs may be contacted in the event of a spill.
  - Montebello
  - Ningaloo
  - Gascoyne
- A Commonwealth Government-approved oil spill response plan will be in place for the duration of the activities, which will include 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 the Marine Park.

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

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**Activity:**

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Wyndham	Sailing vessel	1910	Point Cloates	-22.55	113.5

Zvir	Twin screw steamer	1902	Point Cloates	-22.60916667	113.626
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## 2.11 Email sent Ningaloo Coast World Heritage Advisory Committee (NCWHAC) (28 April 2023)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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### Activity:

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations for commissioned wells. The following survey activities will be undertaken		

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	<b>Geophysical Surveys</b> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<b>Geotechnical Surveys</b> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.



**2.12 Email sent to North West Slope and Trawl Fishery, Western Deepwater Trawl Fishery, Exmouth Gulf Prawn Managed Fishery, Commonwealth Fisheries Association (CFA), Australian Southern Bluefin Tuna Industry Association (ASBTIA), Tuna Australia (28 April 2023)**

Dear Fishery Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
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<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands				
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).						
<b>Schedule</b>	Q4 2023						

<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>
<b>Relevant Fisheries:</b>	<p><b><u>Commonwealth fisheries</u></b></p> <p><b>Operational Area:</b> None</p> <p><b>EMBA:</b> North West Slope and Trawl Fishery and Western Deepwater Trawl Fishery.</p>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.13 Letter sent to Marine Aquarium Managed Marine Aquarium Managed Fishery (12 licence holders), Mackerel Managed Fishery (Area 2) (9 licence holders), Pilbara Crab Managed Fishery (1 licence holder), West Coast Deep Sea Crustacean Managed Fishery (5 licence holders), Specimen Shell Managed Fishery (28 licence holders), Land Hermit Crab Fishery (4 licence holders), Nickol Bay Prawn Managed Fishery (13 licence holders), Onslow Prawn Managed Fishery (18 licence holders), Western Australian Sea Cucumber Fishery (6 licence holders), Pilbara Trawl Fishery (4 licence holders), Pilbara Trap Fishery (4 licence holders) (28 April 2023)**



**Woodside Energy Group Ltd**  
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 Mia Yellagonga  
 11 Mount Street  
 Perth WA 6000  
 Australia  
 T: +61 8 9348 4000  
[www.woodside.com](http://www.woodside.com)

Please direct all responses/queries to:  
**Woodside Feedback**  
 T: 1800 442 977  
 E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

28 April 2023

Dear Stakeholder

**CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN**

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20m - 190m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

A Consultation Information Sheet is attached, which provides 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 [www.woodside.com](http://www.woodside.com). You can also subscribe to receive updates on our consultation activities by subscribing at our website.

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational	Operational Area A	Operational Area B	Operational Area C

Areas							
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub-bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub-bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
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<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).						
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<b>Relevant Fisheries:</b>	<p><b>State fisheries:</b>  <u>Operational Area:</u> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery.  <u>EMBA:</u> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, West Coast Rock Lobster Fishery and Nickol Bay Prawn Managed Fishery.</p>						

**Feedback:**

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Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

**Woodside Feedback**



**Woodside Energy**  
Mia Yellagonga  
Karlak, 11 Mount Street  
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Australia

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[www.woodside.com](http://www.woodside.com)  
f t in v @

**2.14 Email sent to Mackerel Managed Fishery (Area 2) (5 licence holders), Onslow Prawn Managed Fishery (12 licence holders), Pilbara Trawl Fishery (2 licence holders), Pilbara Trap Fishery and Pilbara Line Fishery (28 April 2023)**

Dear Fishery Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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**Activity:**



Operational Area	Operational Area A	Operational Area B	Operational Area C				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Relevant Fisheries:</b>	<p><b>State fisheries</b>  <b>Operational Area:</b> Marine Aquarium Managed Fishery, Mackerel Managed</p>						



	<p>Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery.</p> <p><b>EMBA:</b> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, y and Nickol Bay Prawn Managed Fishery.</p>
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.15 Email sent to Western Australian Fishing Industry Council (WAFIC) (28 April 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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Permit Areas

<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

**Woodside acknowledges WAFIC’s [consultation guidance](#) and has applied this by consulting fisheries that are assessed as having a potential for interaction in the Operational Area directly and consulting fisheries assessed as having a potential for interaction in the EMBA via WAFIC.**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>					
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>		
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> </ul>
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	<ul style="list-style-type: none"> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>		
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		
<b>Relevant Fisheries:</b>	<p><b>State fisheries</b></p> <p><b>Operational Area:</b> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery.</p> <p><b>EMBA:</b> Marine Aquarium Managed Fishery, Mackerel Managed Fishery (Area 2), Onslow Prawn Managed Fishery, Western Australian Sea Cucumber Fishery, Pilbara Trawl Fishery, Pilbara Trap Fishery and Pilbara Line Fishery, Pilbara Crab Managed Fishery, West Coast Deep Sea Crustacean Managed Fishery, Specimen Shell Managed Fishery, Land Hermit Crab Fishery, Exmouth Gulf Prawn Managed Fishery, and Nickol Bay Prawn Managed Fishery.</p>		

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

## 2.16 Email sent to Western Rock Lobster Council (28 April 2023)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

**A 500m temporary exclusion zone around will be in place around the survey vessels to manage vessel movements. No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone.**

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

We have identified potential impacts to active commercial fishers and the environment, which are summarised below. We have endeavoured to reduce these risks to an as low as reasonably practicable level.

Fisheries have been identified as being relevant based on fishing licence overlap, assessment of government fishing effort data (including Fishcube and AFMA) from recent years, fishing methods and water depth.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands				

<b>Schedule</b>	Q4 2023
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.17 Email sent to Exmouth Recreational Marine Users (48 licence holders), Karratha Recreational Marine Users (9 licence holders), Recfishwest, Marine Tourism WA, WA Game Fishing Association (28 April 2023)**

Dear Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.



Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan					
Operational Area	Operational Area A	Operational Area B	Operational Area C		
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> </ul>
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	• Sub- bottom profiler	• Cone Penetrometer Tests	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.



**2.18 Letter sent to Gascoyne Recreational Marine Users (65 licence holders) (28 April 2023)**

Please direct all responses/queries to:  
**Woodside Feedback**  
 T: 1800 442 977  
 E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

28 April 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](http://www.woodside.com)

Dear Stakeholder

**CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN**

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20m - 190m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our [woodside.com](http://www.woodside.com). You can also subscribe to receive updates on our consultation activities by subscribing at our website

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Areas	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations for commissioned wells. The following survey activities will be undertaken under this EP.		
	<b>Geophysical Surveys</b>		<b>Geotechnical Surveys</b>

	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub-bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
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<b>Schedule</b>	Q4 2023		
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**Feedback:**

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Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

**Woodside Feedback**



Woodside Energy  
Mia Yellagonga  
Karlak, 11 Mount Street  
Perth WA 6000  
Australia

T: 1800 442 977  
E: [feedback@woodside.com.au](mailto:feedback@woodside.com.au)  
[www.woodside.com](http://www.woodside.com)  
f t in y @

## 2.19 Letter sent to Pilbara/Kimberley Recreational Marine Users (95 licence holders) (28 April 2023)



**Woodside Energy Group Ltd**  
 ACN 004 898 982  
 Mia Yellagonga  
 11 Mount Street  
 Perth WA 6000  
 Australia  
 T: +61 8 9348 4000  
[www.woodside.com](http://www.woodside.com)

Please direct all responses/queries to:  
**Woodside Feedback**  
 T: 1800 442 977  
 E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

28 April 2023

Dear Stakeholder

### CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20m - 190m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides additional background on the proposed activities, including summaries of potential key impacts and risks, and associated management measures. These are also available on our [woodside.com](http://www.woodside.com). You can also subscribe to receive updates on our consultation activities by subscribing at our website

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

#### Activity:

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Areas	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations for commissioned wells. The following survey activities will be undertaken under this EP.		
	Geophysical Surveys	Geotechnical Surveys	

	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub-bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 - 140 m	~60 - 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

**Woodside Feedback**



Woodside Energy  
Mia Yellagonga  
Karlak, 11 Mount Street  
Perth WA 6000  
Australia

T: 1800 442 977  
E: [feedback@woodside.com.au](mailto:feedback@woodside.com.au)  
[www.woodside.com](http://www.woodside.com)  
f t in v @

## 2.20 Email sent to Karratha Recreational Marine Users (28 April 2023)

Dear Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

### Activity:

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&A) operations for commissioned wells. The following survey activities will be undertaken		

	under this EP.		
	<b>Geophysical Surveys</b> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<b>Geotechnical Surveys</b> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>	
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>		

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.



**2.21 Email sent to BP Developments, Carnarvon Energy, Eni Australia, FINDER No 9/16, Jadestone, KUFPEC Australia, Santos NA Energy Holdings / Santos WA Northwest / Santos Offshore / Santos Ltd / Santos (BOL) / Santos WA PVG, OMV Australia/ Sapura OMV Upstream, KATO Energy/ KATO Corowa/ KATO NWS/ Kato Amulet, PE Wheatstone, Kyushu Electric Wheatstone, Vermillon Oil and Gas Australia, Exxon Mobil Australia Resources Company, JX Nippon Oil and Gas, Shell Australia, Longreach Capital Investments / Beagle No. 1 Pty Ltd, Fugro Exploration, INPEX Alpha (28 April 2023)**

Dear Titleholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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**Activity:**

**Goodwyn Alpha Geophysical and Geotechnical Environment Plan**

Operational Area	Operational Area A	Operational Area B	Operational Area C				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table> <thead> <tr> <th>Geophysical Surveys</th> <th>Geotechnical Surveys</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </tbody> </table>			Geophysical Surveys	Geotechnical Surveys	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
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<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).						
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## 2.22 Email sent to National Energy Resource Australia (NERA) Collaborative Seismic Environment Plan Project (CSEP) (28 April 2023)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
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<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> </ul>						

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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.

**2.23 Email sent to Chevron Australia, Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon (28 April 2023)**

Dear Chevron

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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Permit Areas	
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<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**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.**

#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Distance to nearest marine park/nature reserve</b>	~32 km north of the Montebello Islands Operational Area A is within the Montebello Marine Park – Multiple Use Zone (Cwlth)	~103 km north of the Montebello Islands	~135 km north of the Montebello Islands				
<b>Schedule</b>	Q4 2023						

<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.24 Email sent to Murujuga Aboriginal Corporation (MAC) (18 May 2023)**

Hi [REDACTED]

I note you have received earlier correspondence regarding Woodside's proposed Scarborough, decommissioning and drilling activities. As mentioned earlier, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure (which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier); and
- Goodwyn A Infill Geophysical and Geotechnical Surveys (to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier).

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 Plans.

I have attached summary information sheets that explain the activities we plan to undertake. Detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

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 these activities. As I'm sure you are aware, the EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact MAC's interests and activities and/or cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require from us.

There are various ways in which you can provide feedback. They are as follows:

1. Directly to me on the details below;
2. Via email at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or by calling Woodside Feedback on 1800 442 977
3. Directly to the Australian Government's National Offshore Petroleum Safety and Environmental Management Authority at [communications@nopsema.gov.au](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to MAC members or other people who you think may be interested as required. Woodside would be pleased to speak with MAC members, the MAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

Kind regards

## **2.25 Email sent to Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) (22 May 2023)**

Dear [REDACTED]

Further to our earlier correspondence, meeting with the NTGAC Board and discussions regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.



I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact NTGAC's interests and activities and/or cultural values;
- NTGAC's concerns about the proposed activities and what NTGAC thinks we should do about those concerns;
- Whether there are any other individuals, groups or organisations NTGAC thinks we should talk to.

If NTGAC would like to speak with us, please let us know by **19 June 2023** and please also advise of NTGAC's preferred method of consultation and any support NTGAC may require.

NTGAC, NTGAC members and other individuals, groups or organisations can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to NTGAC, NTGAC members and other groups, individuals and / or organisations who NTGAC thinks may be interested as required. Woodside would be pleased to speak with NTGAC members, the NTGAC Board and office holders and other interested parties.

We look forward to hearing from you.

Sincerely,

██████

## **2.26 Email sent to Buurabalayji Thalanyji Aboriginal Corporation (BTAC) (18 May 2023)**

Dear ██████ and ██████

██████, thank you for your time on the phone this morning. Further to our discussions and earlier correspondence regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the

GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

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 these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

BTAC, BTAC members and other individuals, groups and organisations can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to BTAC members and other people who you think may be interested as required. Woodside would be pleased to speak with BTAC members, the BTAC Board and office holders and other interested parties.

We look forward to hearing from you and to continuing our work together, including on the ongoing consultation framework.

As always please be in contact if you require further information and please reach out if Woodside can assist BTAC in any way to participate in these processes.

Sincerely,

## **2.27 Email sent to Yinggarda Aboriginal Corporation (YAC) (22 May 2023)**

Dear Sir / Madam,



Further to my previous correspondence about consultation with Yinggarda Aboriginal Corporation (YAC) regarding Woodside's offshore activities, please find attached information about two additional Woodside activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that YAC and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact YAC's interests and activities and/or cultural values;
- YAC's concerns about the proposed activities and what YAC thinks we should do about those concerns;
- Whether there are any other individuals, groups or organisations YAC thinks we should talk to.

If YAC would like to speak with us, please let us know by **19 June 2023** and please also advise of YAC's preferred method of consultation and any support YAC requires.

YAC, YAC members and other individuals, groups or organisations can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to YAC, YAC members and other groups, individuals and / or organisations who YAC thinks may be interested as required. Woodside would be pleased to speak with YAC members, the YAC Board and office holders and other interested parties.

We look forward to hearing from you.

Sincerely,

## 2.28 Email sent to Kariyarra Aboriginal Corporation (18 May 2023)

Dear [REDACTED]

Further to our earlier correspondence with you regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that Kariyarra Aboriginal Corporation (KAC) and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

KAC can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to KAC members or other people who you think may be interested as required. Woodside would be pleased to speak

with KAC members, the KAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

## 2.29 Email sent to Wirrawandi Aboriginal Corporation (WAC) (18 May 2023)

Dear [REDACTED]

Further to our earlier correspondence with you regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that Wirrawandi Aboriginal Corporation (WAC) and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

WAC can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to WAC members or other people who you think may be interested as required. Woodside would be pleased to speak with WAC members, the WAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

### 2.30 Email sent to Robe River Kuruma Aboriginal Corporation (18 May 2023)

Dear [REDACTED]

Further to our earlier correspondence with you regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

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 these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

RRKAC can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to [RRKAC](#) members or other people who you think may be interested as required. Woodside would be pleased to speak with RRKAC members, the RRKAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

### 2.31 Email sent to Ngarluma Aboriginal Corporation (NAC) (18 May 2023)

Dear [REDACTED] and [REDACTED]

Further to our earlier correspondence and the opportunity to present to the board yesterday (17 May) regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

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 these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

NAC can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to NAC members or other people who you think may be interested as required. Woodside would be pleased to speak with NAC members, the NAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

Sincerely,

## 2.32 Email sent to Yindjibarndi Aboriginal Corporation (YAC) (18 May 2023)

Dear [REDACTED]

Further to our earlier correspondence with you regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

- Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier
- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

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 these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact your interests and activities and/or your cultural values;
- Your concerns about the proposed activities and what do you think we should do about those concerns;
- Whether there are any other individuals, groups or organisations you think we should talk to.

If you would like to speak with us, please let us know by **19 June 2023** and please also advise of your preferred method of consultation and any support you may require.

YAC can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to YAC members or other people who you think may be interested as required. Woodside would be pleased to speak



with YAC members, the YAC Board or office holders and other interested parties as required.

We look forward to hearing from you.

Sincerely,

### **2.33 Email sent to Ngarluma Yindjibarndi Foundation Ltd (NYFL) (22 May 2023)**

Good afternoon [REDACTED]

This email relates to an environmental plan for the NWS, specifically the Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier.

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 Plans.

I have attached a summary information sheet that explains the activities we plan to undertake, and a detailed consultation information sheet can be found here: [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that NYFL and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact NYFL's interests and activities and/or cultural values;
- NYFL's concerns about the proposed activities and what NYFL thinks we should do about those concerns;
- Whether there are any other individuals, groups or organisations NYFL thinks we should talk to.

If NYFL would like to speak with us, please let us know by **22 June 2023** and please also advise of NYFL's preferred method of consultation and any support NYFL may require.

NYFL, NYFL members and other individuals, groups or organisations can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to NYFL members and other groups, individuals and / or organisations who NYFL thinks may be interested as required. Woodside would be pleased to speak with NYFL members, the NYFL Board and office holders and other interested parties.

I look forward to hearing from you.



Kind regards

## 2.34 Email sent to Yamatji Marlpa Aboriginal Corporation (YMAC) (22 May 2023)

Dear [REDACTED]

Further to our earlier correspondence, meeting with the NTGAC Board and discussions regarding Woodside's proposed Scarborough, decommissioning and drilling activities, please find attached information about two additional activities:

Julimar Development Project Phase 3 (JDP3) wells and subsea infrastructure, which will connect to the existing Julimar Field Production System approximately 160 km North West of Dampier

- Goodwyn A Infill Geophysical and Geotechnical Surveys, to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure, approximately 140km North West of Dampier

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 Plans.

I have attached summary information sheets that explains the activities we plan to undertake, and detailed consultation information sheets can be found at the links below:

- [Julimar Development Project Phase 3](#)
- [Goodwyn A Infill Geophysical and Geotechnical Surveys](#)

Woodside is seeking to understand the nature of the interests that Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) and its members may have in the 'environment that may be affected' (EMBA) by these activities. The EMBA is the total area over which unplanned events could have environmental impacts. The EMBA is set out in the attached Summary Information Sheet. In particular, we are interested in hearing:

- About how the activities outlined in the Summary Information Sheet could impact NTGAC's interests and activities and/or cultural values;
- NTGAC's concerns about the proposed activities and what NTGAC thinks we should do about those concerns;
- Whether there are any other individuals, groups or organisations NTGAC thinks we should talk to.

If NTGAC would like to speak with us, please let us know by **19 June 2023** and please also advise of NTGAC's preferred method of consultation and any support NTGAC may require.

NTGAC, NTGAC members and other individuals, groups or organisations can also provide feedback directly to me on the details below, to [Feedback@woodside.com.au](mailto: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](mailto:communications@nopsema.gov.au) or (08) 6188 8700.

Please feel free to forward this email and the attached documents to NTGAC, NTGAC members and other groups, individuals and / or organisations who NTGAC thinks may be interested as required. Woodside would be pleased to speak with NTGAC members, the NTGAC Board and office holders and other interested parties.

We look forward to hearing from you.

Sincerely,



### 2.35 Email sent to Western Australian Museum (28 April 2023)

Dear Western Australian Museum

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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 is a list of shipwrecks in State waters within the EMBA.** You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>						
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**Feedback:**

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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.

### 2.35.1 List of State Shipwrecks sent to Western Australian Museum (28 April 2023)

WA Historical Shipwrecks 0998							
NAME	COMMENTS	TYPE	UNIQUENO	WHEN_LOST	WHERE_LOST	LON	LAT
Benan		Ship	30329	1886/12/23	Point Cloates	113.6733	-22.7427
Manfred		Barque	30573	1879/01/24	Lacepedes	122.1283	-16.8567
Perth SS	Formerly the Penola SS	Steamship	30811	1887/09/17	Point Cloates	113.6403	-22.6942
Rapid		Ship	30859	1811/01/07	Ningaloo Reef	113.6833	-22.7333
Stefano	Found in 1997	Brig	31002	1875/10/27	Point Cloates	113.7195	-22.8288
Trial	First European wreck on the Australian coast	Ship	31072	1622/05/24	Trial Rocks	115.3737	-20.2872
Zvir SS	Accoding to Cards 2103 Tonn	Steamship	30715	11/27/1902	Point Cloates	113.626	-22.6092
Mildura SS	Most of the cattle perished	Steamship	31049	3/12/1907	North-West Cap	114.1667	-21.7857
Fin SS		Steamship	30619	2/15/1923	Point Cloates, F	113.6268	-22.6488
Lady Ann	Check Lats and Longs. Oil rig tender	Ship (non-sail)	30606	9/18/1982	24 miles north c	114.2	-21.4

### 2.36 Email sent to Shire of Exmouth (Sent 1 May)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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#### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
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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.

**2.37 Email sent to Shire of Ashburton (1 May 2023)**

Dear [REDACTED], [REDACTED] and [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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<b>Operational Area C</b>	WA-3-L

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<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
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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.

**2.38 Email to City of Karratha (1 May 2023)**

Dear [redacted] and [redacted]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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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.

**2.39 Email sent Exmouth Community Liaison Group (1 May 2023)**

Dear Exmouth Community Liaison Group

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
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<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>						
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### Feedback:

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

#### **2.40 Email sent to Karratha Community Liaison Group (1 May 2023)**

Dear Karratha Community Liaison Group

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

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### Activity:

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>							
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>				
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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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.

**2.41 Email sent to Onslow Chamber of Commerce and Industry (sent 1 May 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

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**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future		



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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier
<b>Schedule</b>	Q4 2023		
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.		
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).		
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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.



**2.42 Email sent to Australian Conservation Foundation (ACF), Australian Marine Conservation Society (AMCS), Conservation Council of Western Australia (CCWA), Greenpeace Australia Pacific (GAP) (28 April 2023)**

Dear Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
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<b>Operational Area C</b>	WA-3-L

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If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C

<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
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## 2.43 Email sent to Sea Shepherd and The Wilderness Society (1 May 2023)

Dear Stakeholder

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
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**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>					
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>		
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **30 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.44 Email sent to Cape Conservation Group (CCG) (28 April 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea		

	<p>infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>						
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>						

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.



**2.45 Email sent to University of Western Australia (UWA) (28 April 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

**Woodside is seeking your advice regarding any research activities that UWA may be undertaking that may overlap with our proposed activities.**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea		

	<p>infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m				
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier				
<b>Schedule</b>	Q4 2023						
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.						
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>						
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.



## 2.46 Email sent to Western Australian Marine Science Institution (WAMSI) (28 April 2023)

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [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 the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

### Activity:

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea		

	<p>infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S		
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<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier		
<b>Schedule</b>	Q4 2023				
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.				
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>				
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.47 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) (28 April 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

Permit Areas	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L
<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [here](#).

**Woodside is seeking your advice regarding any research activities that CSIRO may be undertaking that may overlap with our proposed activities.**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea		

	<p>infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="text-align: center;"><b>Geophysical Surveys</b></td> <td style="text-align: center;"><b>Geotechnical Surveys</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<b>Geophysical Surveys</b>	<b>Geotechnical Surveys</b>	<ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L				
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S				
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**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.48 Email sent to Australian Institute of Marine Science (AIMS) (28 April 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

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<b>Operational Area C</b>	WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [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 the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

Goodwyn Alpha Geophysical and Geotechnical Environment Plan			
Operational Area	Operational Area A	Operational Area B	Operational Area C
<b>Summary</b>	Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and		

	<p>umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>				
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S		
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m		
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier		
<b>Schedule</b>	Q4 2023				
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.				
<b>Vessels</b>	<p>Two multi-purpose project survey vessels for geophysical and geotechnical surveys.</p> <p>One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).</p>				
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>				

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**2.49 Newspaper Advertisement (26 April 2023)**



Midwest Times

WEDNESDAY, APRIL 26, 2023

midwesttimes.com.au

MIDWEST TIMES 23

## ENVIRONMENT PLANS NOTICE

Woodside Energy Ltd (ACN 006 921 879) and Woodside Energy Julimar Pty Ltd (ACN 130 391 365) are proposing to conduct activities in Commonwealth waters as described below.

### Julimar Development Project Phase 3 (JDP3) Drilling and Subsea Installation Environment Plan (Woodside Energy Julimar Pty Ltd)

<b>Activity summary:</b>	Activities to develop the Julimar Development Project Phase 3 (JDP3) by installing five new wells and subsea infrastructure, which will connect to the existing Julimar Field Production System.
<b>Location:</b>	Approximately 80km north-west of Dampier to the Petroleum Activities Area.
<b>Commencement timing:</b>	Anticipated around Q3 2024, pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 60 days per well and will take place 24 hours, 7 days a week. Subsea installation activities are likely to take approximately 100 days.

### Geophysical and Geotechnical (SP/ST) Surveys – Goodwyn A Infill (SP/ST) Environment Plan (Woodside Energy Ltd)

<b>Activity summary:</b>	Activities to undertake geophysical and geotechnical surveys in multiple 100-hectare blocks adjacent to existing associated infrastructure. These surveys will support future activities including Goodwyn A (GWA) infill development and plug and abandonment (PBA) of decommissioned wells.
<b>Location:</b>	Approximately 160km north-west of Dampier.
<b>Commencement timing:</b>	Anticipated around Q4 2023 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 17 weeks for geophysical and geotechnical surveys and will take place 24 hours, 7 days a week.

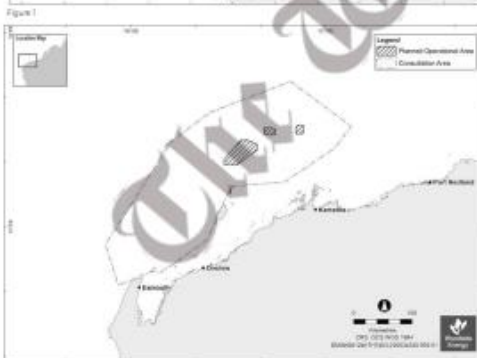
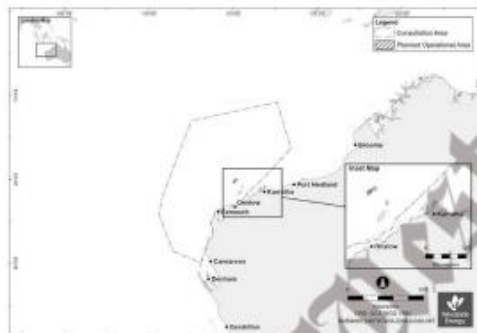
Figure 1 (JDP3) and Figure 2 (SP/ST) Describe the Operational Area and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

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 relevant EP.

Impacts associated with the JDP3 planned activities include the physical presence of a Mobile Offshore Drilling Unit (MODU) and vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel, drilling and construction impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (condensates, marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

Impacts associated with the SP/ST planned activities include the physical presence of vessels, interaction with other marine users, seabed disturbance (such as survey equipment and batteries), noise, light, air emissions and marine discharges. Impacts that could occur due to an unplanned event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, introduced marine species, accidental loss of waste or other discharges.

Figure 1 and Figure 2 illustrative EMBA to support persons or organisations understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheets.



**Figure 2**  
**Consultation Participation and Feedback**  
 Woodside is seeking to consult with relevant persons to inform the preparation of Environment Plans (EPs) for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside identify measures to assess or avoid potential adverse effects of the proposed activity on the environment.  
 Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA) and support other regulatory submissions associated with the planned activities. Detailed consultation information sheets are available at: [www.woodside.com/sustainability/consultation-activities](http://www.woodside.com/sustainability/consultation-activities) if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.  
 If you would like to comment on the proposed activities outlined above, please contact Woodside before **Friday, 26 May 2023** via:  
 E: [Feedback@woodside.com](mailto:Feedback@woodside.com)  
 Tel: free 1800 642 977

## ENVIRONMENT PLANS NOTICE

Woodside Energy Julimar Pty Ltd (ACN 130 391 365) is proposing to conduct activities in Commonwealth waters as described at **Table 1** below.

An Environment Plan (EP) for the proposed activity has been prepared in accordance with the regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA)*. A public comment period is open until **Friday, 19 May 2023**.

The public comment process provides an opportunity for community members to have their say on environmental management aspects of the proposed activities. For more information about the proposed activity or to make a submission in relation to the EP, see NOPSEMA's website at: <https://consultation.nopsema.gov.au/environment-division/7417/>

**Table 1: Julimar Drilling and Surveys Environment Plan (Woodside Energy Julimar Pty Ltd)**

<b>Activity summary:</b>	Geotechnical and geophysical surveys, drilling and appraisal of the Julimar South-1 well and (PBA) and abandonment of Julimar South-1
<b>Location:</b>	~182 km west-northwest of Dampier
<b>Commencement timing:</b>	Anticipated around second half of 2023 pending approvals, vessel availability and weather constraints. However, drilling may be performed at any point within the life of the EP.
<b>Estimated duration:</b>	~40 days for the drilling and appraisal, ~45 days geophysical and geotechnical surveys and ~21 for decommissioning of the Julimar South-1 well. Activities will be conducted 24 hours per day, seven days per week.
<b>Public comment period closes</b>	Friday, 19 May 2023 See NOPSEMA's website at: <a href="https://consultation.nopsema.gov.au/environment-division/7417/">https://consultation.nopsema.gov.au/environment-division/7417/</a>

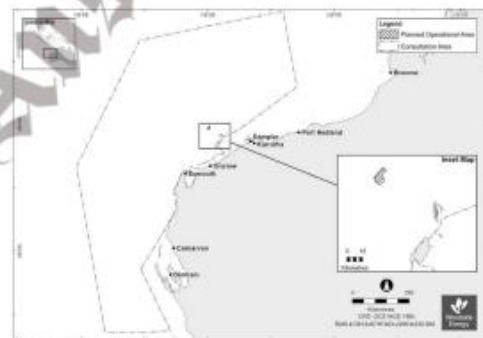


Figure 1 describes the Operational Area and the Environment That May Be Affected (EMBA) based on a composite of many different paths and furthest distance where a highly unlikely, unplanned event could have an impact based on weather and ocean conditions.

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 EP.

Impacts associated with the planned activities include the physical presence of a Mobile Offshore Drilling Unit

(MODU) and vessels, interaction with other marine users, seabed disturbance (such as infrastructure placement) and other vessel, drilling and construction impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (condensates, marine diesel or other vessel fuels), vessel collisions with marine fauna, additional seabed disturbance, introduced marine species, accidental loss of waste or other discharges.

The indicative EMBA (Figure 1) supports persons or organisations understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheets available at: [www.woodside.com/sustainability/consultation-activities](http://www.woodside.com/sustainability/consultation-activities)

If you would like to comment on the proposed activities outlined above or for more information, please see NOPSEMA's website at: <https://consultation.nopsema.gov.au/environment-division/7417/> and provide your comment by **Friday, 19 May 2023**.

THIS COPYRIGHT MATERIAL MUST NOT BE REPRODUCED WITHOUT PERMISSION OR PASSED ON TO ANY THIRD PARTY. CONTACT: [SYNDICATION@WANENWS.COM.AU](mailto:SYNDICATION@WANENWS.COM.AU)

NorthWest Telegraph

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**DEATHS**

**WINMAR**  
(Mervyn Aaron):  
Passed away in South  
Hedland. Loving Son of  
Margaret and Alan (dec).  
Wonderful Father of  
Nicki, Jaimes, Peter,  
Mervyn, Orlando and  
Valentina. Loved Uncle  
to all nieces and  
nephews. Pop of  
Shannon and Louisa.  
Brother of Alan,  
Henry, Ebony, Derek,  
Christopher and  
extended families.  
Grandson of Melita and  
Leonard (dec) Walford  
and Henry and Hazel  
Winmar (both dec).  
Stepson of David Moses  
Martin (dec) and also  
brother of Miranda.  
Loved by so many,  
never to be forgotten by  
family and friends,  
always and forever.

**PUBLIC NOTICES**

**Searcher**  
Seismic Survey Consultation Invitation

Searcher Seismic Pty Ltd is proposing to conduct 3D Marine Seismic Surveys (MSS) located Offshore in the North West Region of Western Australia. As such Searcher wishes to provide all potential stakeholders the opportunity to provide us with any claims or sensitivities affecting your functions, interests or activities in order to address any issues or concerns.

**Possom 3D MSS** is approximately 211km offshore of Broome and 241km from Port Hedland. Survey duration will be about 70 days commencing sometime between Jan and July 2023. Full Environment Plan: [https://info.regionsa.gov.au/infocentre/infocentre\\_plans/563/show\\_public](https://info.regionsa.gov.au/infocentre/infocentre_plans/563/show_public)

**Superbowl 3D MSS** is approximately 105km offshore of Port Hedland. Maximum annual survey duration will be around 60 days with acquisition between Jan 2023 to Dec 2025.

Project details are available on our website: [searcherseismic.com/uk/ukholderfeedback](http://searcherseismic.com/uk/ukholderfeedback) or contact us direct.  
Phone: +61 (0)8 9327 0301  
Email: [feedback@searcherseismic.com](mailto:feedback@searcherseismic.com)

**FUNERAL NOTICES**

**WINMAR:**  
The Funeral Service for the late Mr Mervyn Aaron Winmar will take place in Church of Christ, 48 Tinperley Road, South Bunbury commencing at 1pm on **FRIDAY 6.5.23**. Following the Service the cortege will proceed to the **BUNBURY** Lawn Cemetery for burial arriving at 2.30pm.

William Barrett & Sons  
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## ENVIRONMENT PLANS NOTICE

Woodside Energy Ltd (ACN 006 522 870) and Woodside Energy Julianor Pty Ltd (ACN 130 298 886) are proposing to conduct activities in Commonwealth waters as described below.

**Julianor Development Project Phase 2 (DPT) Drilling and Subsea Installation Environment Plan**  
(Woodside Energy Julianor Pty Ltd)

<b>Activity summary:</b>	Activities to develop the Julianor Development Project Phase 2 (DPT2) by installing five new wells and subsea infrastructure, which will connect to the existing Julianor Field Production System.
<b>Location:</b>	Approximately 160 km north-west of Dampier to the Petroleum Actives Area.
<b>Commencement timing:</b>	Anticipated around Q2 2024 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 60 days per well and will take place 24 hours, 7 days a week. Subsea installation activities are likely to take approximately 100 days.

**Geophysical and Geotechnical (SP/OT) Surveys – Goodwyn A Infill (GP/OT) Environment Plan**  
(Woodside Energy Ltd)

<b>Activity summary:</b>	Activities to undertake geophysical and geotechnical surveys in multiple 100-hectare blocks adjacent to existing offshore infrastructure. These surveys will support future activities including Goodwyn A (GWA) well development and plug and abandonment (P&A) of non-commissioned wells.
<b>Location:</b>	Approximately 10 km north-west of Dampier.
<b>Commencement timing:</b>	Anticipated around Q4 2023 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 17 weeks for geophysical and geotechnical surveys and will take place 24 hours, 7 days a week.

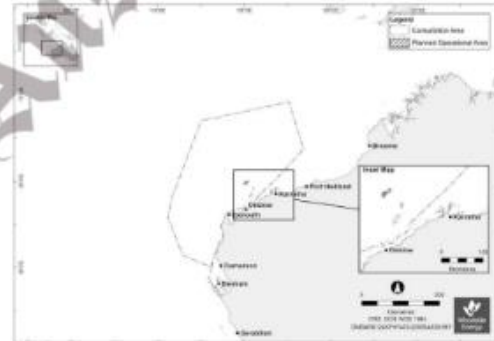
**Figure 1 (DPT2) and Figure 2 (GP/OT)** Describe the location of Areas of Environmental Impact (AEI) based on a composite of many different parts and factors, which may vary in severity, unpaired event could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts associated to the marine environment arising from both planned and unpermitted activities. Mitigation and management measures to have been developed for each of these activities and will be outlined in the relevant EI.

Impacts associated with the DPT2 planned activities include the physical presence of a Mobile Offshore Drilling Unit (MODU) and vessels, interaction with other marine users, such as fish and aquaculture and other vessels, drilling and construction impacts such as noise (BOP) or emissions, sediment discharges. Impacts that could occur due to an unpermitted event include hydrocarbon releases, contaminants, marine diesel or other vessel fuels, vessel collisions with marine fauna, additional seabed disturbance, hydrocarbon marine wastes, accidental loss of waste or other discharges.

Impacts associated with the GP/OT planned activities include the physical presence of vessels, interaction with other marine users, vessel disturbance, such as noise, light, air emissions and marine discharges. Impacts that could occur due to an unpermitted event include hydrocarbon releases (marine diesel or other vessel fuels), vessel collisions with marine fauna, unpermitted marine wastes, accidental loss of waste or other discharges.

**Figure 1 and Figure 2** include maps of the AEIs to support persons or organisations understanding whether their functions, interests or activities could be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Document.



**Consultation Participation and Feedback**

Woodside is seeking to consult with relevant persons to inform the preparation of Environment Plans (EP) for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside identify measures to avoid or avoid potential adverse effects of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2004 (OPGGSA) and support other regulatory submissions associated with the planned activities. Detailed consultation information sheets are available at [www.woodside.com/australia/australia/consultation-activities](http://www.woodside.com/australia/australia/consultation-activities) if you would like additional information about these activities. You can also subscribe via our website to receive future information on proposed activities.

If you would like to comment on the proposed activities outlined above, please contact Woodside before **Friday, 16 May 2023** via:



Pilbara News

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TENDERS

**City of Karratha**  
**REQUEST FOR TENDER RECONSTRUCTION HILLVIEW AND BALMORAL ROADS RFT09-22/23**

The City is seeking tenders from suitably qualified and competent contractors for the reconstruction of Balmoral and Hillview Roads, and associated works.

A copy of the tender documents must be obtained by registering your details via the City's Tenderlink website: [www.tenderlink.com/karratha](http://www.tenderlink.com/karratha)

Tenders can only be lodged electronically via the City's Tenderlink website: [www.tenderlink.com/karratha](http://www.tenderlink.com/karratha)

Non Mandatory briefing is 2.00pm (AWST) Friday, 12 May 2023.

The deadline for tenders to be submitted is 2.00pm (AWST) Wednesday, 24 May 2023.

Please direct any enquiries to Zoe Rosendahl via the Tenderlink online forum. *Conversing of Elected Members may differ.*

**Virginia Miltrup**  
Chief Executive Officer

PUBLIC NOTICES

**City of Karratha**  
**ACCESS & INCLUSION**

Have you experienced challenges in accessing events, facilities, services or information within the City of Karratha? Have you ever been met with resistance when seeking inclusion in sports and other community activities?

As part of the City of Karratha's review to inform the future direction of its Disability Access and Inclusion Plan (DAIP) 2018-2027, we would like to hear from our residents. If you have a story to tell, we would like to hear from you!

Please contact the City of Karratha's Community Engagement team via email - [communityengagement@karratha.wa.gov.au](mailto:communityengagement@karratha.wa.gov.au); or in writing - City of Karratha, Welcome Road, Karratha 6714.

To access further information or view the current DAIP 2018-2022, please attend the City's Administration Office during business hours or access the City's website at: [www.karratha.wa.gov.au/community/accessibility-diversity-and-inclusion/](http://www.karratha.wa.gov.au/community/accessibility-diversity-and-inclusion/)

**Virginia Miltrup**  
Chief Executive Officer

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## ENVIRONMENT PLANS NOTICE

Woodside Energy Ltd (LEYN 006 927 870) and Woodside Energy Julian Plains (LEYN 006 927 870) are proposing to conduct activities in Commonwealth waters as described below:

**Julian Development Project Phase 2 (JDP2) Drilling and Subsea Installation Environment Plan**  
(Woodside Energy Julian Pty Ltd)

<b>Activity summary:</b>	Activities to develop the Julian Development Project Phase 2 (JDP2) by installing five new wells and subsea infrastructure, which will connect to the existing Julian Field Production System.
<b>Location:</b>	Approximately 160 km north-west of Carnarvon to the Petroleum Activities Area.
<b>Commencement timing:</b>	Anticipated around Q2 2024 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 60 days per well and will take place 24 hours, 7 days a week. Subsea installation activities are likely to take approximately 100 days.

**Geophysical and Geotechnical (GP/GT) Surveys - Goodwyn A Infill (GP/CT) Environment Plan** (Woodside Energy Ltd)

<b>Activity summary:</b>	Activities to undertake geophysical and geotechnical surveys in multiple offshore locations adjacent to existing associated infrastructure. These surveys will support future activities including Goodwyn A (GWA) Infill development and subsea installation (PSAs) of decommissioned wells.
<b>Location:</b>	Approximately 140 km north-west of Carnarvon.
<b>Commencement timing:</b>	Anticipated around Q4 2023 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 17 weeks for each well and subsea installation and will take place 24 hours, 7 days a week.

Figure 1 (JDP2) and Figure 2 (GP/CT) describe the Potential Adverse Environmental Impacts (PAAEs) based on a composite of many different paths and the scenarios where they are likely to occur. Unplanned events could have an impact based on weather and ocean conditions.

Woodside has undertaken an assessment to identify potential impacts to the marine environment arising from both planned and unplanned activities. Mitigation and management measures have been developed for each of the impacts identified and will be outlined in the relevant EI.

Impacts associated with the JDP2 plan of work may include the physical presence of a Mobile Offshore Drilling Unit (MODU) and vessel, interaction with other marine users (including a subsea infrastructure) and other vessel, drilling and construction impacts such as noise, light or other electromagnetic discharges. Impacts that could occur due to an unplanned event include hydrocarbon releases (from engine, from the vessel or other vessel fuel), vessel collisions with marine fauna, additional vessel discharges (oil, fuel, marine wastes), accidental loss of waste or other discharges.

Impacts associated with the GP/CT plan of work may include the physical presence of a vessel, interaction with other marine users, vessel discharges (oil, fuel, marine wastes), accidental loss of waste or other discharges.

Figure 1 and Figure 2 include the PAAEs to support persons or organisations understanding of whether their functions, interests or activities may be affected by the proposed activities, with detailed information found in Woodside's Consultation Information Sheet.



Figure 1



Figure 2

**Consultation Participation and Feedback**

Woodside is seeking to consult with relevant persons to obtain the preparation of Environment Plans (EPs) for these activities. Consultation is designed to notify and obtain input from relevant persons to assist Woodside identify measures to avoid or avoid potential adverse effects of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with environmental regulations administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGSA) and support other regulatory submissions associated with the planned activities.

Detailed consultation information sheets are available at [www.woodside.com/sustainability/consultation-activities](http://www.woodside.com/sustainability/consultation-activities) if you would like additional information about these activities. You can also subscribe to our website to receive future information on proposed activities.

If you would like to comment on the proposed activities outlined above, please contact Woodside before **Friday, 24 May 2023** via:

The Australian

# ENVIRONMENT PLANS NOTICE

Woodside Energy Ltd (EN) 08 923 8700 and Woodside Energy Advisor Pty Ltd (EN) 130 965 are proposing to conduct activities at Commonwealth waters as described below:

**Julimar Development Project Phase 2 (JDP2) Drilling and Subsea Installation Environment Plan**  
(Woodside Energy Julimar Pty Ltd)

<b>Activity summary:</b>	Activities to develop the Julimar Development Project Phase 2 (JDP2) by installing five new wells and subsea infrastructure, which will connect to the existing Julimar Field Production System.
<b>Location:</b>	Approximately 100 km north-west of Dongara in the Petroleum Activities Area.
<b>Commencement timing:</b>	Anticipated around Q4 2022 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 60 days per well and will take place 24 hours, 7 days a week. Subsea installation activities are likely to last approximately 30 days.

**Geophysical and Geotechnical (GRN/T) Surveys – Goodwyn A Infill (GRN/T) Environment Plan** (Woodside Energy Ltd)

<b>Activity summary:</b>	Activities to undertake geophysical and geotechnical surveys in multiple blocks adjacent to existing Goodwyn A infrastructure. These surveys will support future activities including Goodwyn A (GWA) well development and plug and abandonment (P&A) of decommissioned wells.
<b>Location:</b>	Approximately 100 km north-west of Dongara.
<b>Commencement timing:</b>	Anticipated around Q4 2022 pending approvals, vessel availability and weather constraints.
<b>Estimated duration:</b>	Approximately 17 weeks for geophysical and geotechnical surveys and will take place 24 hours, 7 days a week.

**Figure 1 (JDP2) and Figure 2 (GRN/T)** Describe the Operational Areas and the Environment That May Be Affected (EMA) based on a composite of many different wells and further details where a highly unlikely unplanned event could have an impact based on weather and ocean conditions.

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 relevant EP.

Impacts associated with the JDP2 planned activities include the physical presence of a Mobile Offshore Drilling Unit (MODU) and vessel, interaction with other marine users, vessel disturbance (such as, if infrastructure placement) and other vessel, drilling and construction impacts (such as noise, light, air emissions and marine discharges). Impacts that could occur due to an unplanned event include hydrocarbon releases (condensates, main gas or other vessel leaks), vessel collisions with marine fauna, sediment plume disturbance, introduced marine species, accidental loss of waste or other discharges.

Impacts associated with the GRN/T planned activities include the physical presence of vessels, interaction with other marine users, vessel disturbance (such as, if survey equipment and boreholes), noise, light, air emissions and marine discharges. Impacts that could occur due to an unplanned event include hydrocarbon releases (main gas or other vessel leaks), vessel collisions with marine fauna, introduced marine species, accidental loss of waste or other discharges.

**Figure 1 and Figure 2** illustrate the EMA to support persons or organisations under standing of whether their functions, interests or activities may be affected by the proposed activities. For detailed information, found in Woodside's Consultation Information Sheet.

**Figure 2**

**Consentation Participation and Feedback**

Woodside is seeking to consult with relevant persons to inform the preparation of Environment Plans (EPs) for these activities. Consultation is designed to identify and address relevant persons to assist Woodside identify measures to lessen or avoid potential adverse effects of the proposed activity on the environment.

Consultation will inform the development of each EP in accordance with arrangements agreed in writing, administered by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) under the Offshore Petroleum and Greenhouse Gas Storage Act 2020 (OPGSA) and support other regulatory submissions associated with the proposed activities.

Detailed consultation information sheets are available at [www.woodside.com.au/sustainability/consultation-activities/](http://www.woodside.com.au/sustainability/consultation-activities/) if you would like additional information about these activities. You can also subscribe to our website to receive future information on proposed activities.

If you would like to comment on the proposed activities outlined above, please contact Woodside by email:

**Friday, 26 May 2022 10:00**

**E: Feedback@woodside.com**  
**Tel: 1300 442 377**

## 6 THE AUSTRALIAN THE NATION

WEDNESDAY, APRIL 26, 2022 theaustralian.com.au

# Shift to 60-day scripts in pharmacy shake-up

**NATASHA ROBINSON**  
255 MALCOLM

The federal government is pushing through changes allowing patients to be prescribed 60-day supplies of a large host of medications in a shake-up of the Pharmaceutical Benefits Scheme that will save many consumers hundreds of dollars a year.

The initiative contained in the upcoming budget aims to save the one-year old recommendation of the Pharmaceutical Benefits Advisory Committee long opposed by powerful lobby groups.

The change is set to affect at least six million Australians, who will also see hundreds of dollars taken off their bills for 60-day supplies of many medicines.

The PBA, called for the change to apply to 41 commonly prescribed medicines by the end of 2023. Patients have to go back to the pharmacist to get a new 60-day supply every month.

Under the change to 60-day dispensing, even patients on just one medication will save \$80 a year as they will only have to pay the PBS co-payment once. With many people, especially elderly, on three or more medications, some consumers will be saving thousands of dollars a year. Those with chronic conditions will save the most. The government estimates will save the federal budget \$1.6 billion over the next four years.

"This cheaper medicines policy is safe, good for Australia's top doctors, and most importantly good for their health," Health Minister Mark Butler said.

Pharmacies already do track more than just dispense medicine and the government is supporting our community pharmacists to have an even larger role in the healthcare of Australians."

But the Goodfellow Institute, the PBA's adviser, Mr Butler has

months, paying a PBS co-payment of \$3 every time, or \$7.50 for prescriptions.

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## Scrap negative gearing if you want our votes: Greens

**RENT RELIEF**  
The Greens housing affordability funding switch

By: 26/02/22 at 10:22 AM

Greens leader Adam Bandt has called on Anthony Albanese to scrap negative gearing and capital gains tax discounts to halve the doubling of rent assistance, a rent freeze and more government-owned affordable housing.

Parliamentary Budget Office modelling commissioned by the Greens shows that ending tax breaks for property investors would save \$2.6 billion over five years and offset expenditure on the left wing party's housing wishlist.

Mr Bandt urges the Greens housing policy, valued at \$64.4bn, could be legislated in parliament by July and delivered by the end of the year.

In a "National Press Club" speech on Wednesday, Mr Bandt said he would support the Prime Minister's 100% Housing Australia Future Fund action but believes the Greens' proposals.

Mr Bandt, who made similar threats to scuttles the government's proposed mechanism and 2023 coalition reduction target before \$4.5bn to last-minute negotiations, will say if Labor "wants our support on the housing bill, it needs to come to the table on the rent freeze."

The Greens' five-point housing package includes doubling the rate of commonwealth rent assistance of 50 per cent, building 25,000 public owned properties, a double detachable 50 per cent capital gains discount, establishing a rent freeze housing fund for the government and phasing out investment property deductions.

The expenditure review committee cabinet has been looking at raising rent assistance to the May

tax discounts in 2023-23. The document said "income tax-growth is forecast to 2023-22 and 2022-23 due to higher capital gains realisations for individuals" before reducing in subsequent years. The Greens say the majority of those benefiting from capital gains tax discounts and negative gearing are high-income earners aged over 50.

It is the Coalition opposed to the housing fund, the government needs the Greens and two co-ordinators to get its legislation through the parliament when MPs return for budget.

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## Chalmers faces ALP revolt on JobSeeker

**EXCLUSIVE**  
SUN NEWS360

Ben Chalmers is facing growing internal division over his decision to reject a one \$240 million contribution from the Economic Recovery Advisory Council to raise JobSeeker by \$1 billion to just under \$100 a fortnight.

Labour MP Mike Finlayson is joining an increasing number of Labor backbenchers urging the Treasurer to substantially increase JobSeeker to address structural inequality.

The Treasurer MP also did an about-face on his decision to go ahead with JobSeeker in July after previously arguing the government should deliver the tax cuts in full and reserve people earning \$200,000 over "wealthy".

He has now called for the cuts to be reversed to fund an increase in JobSeeker for the nation's most vulnerable.

"I think JobSeeker should be raised as it's just a measure of inequality - and I'm changing my opinion about that," Chalmers said in a radio interview. "When I look at the level of inequality that rate of JobSeeker, it's clear we need to do something," Dr Finlayson said.

"I can't see the steps that have been taken in the way we can pay for an increase in JobSeeker. It's not clear to go back as what we've said that the situation is now very different, even though we've rolled back those steps. There's no doubt, but I've got a very different view on what's being argued."

The Albanese government is facing a backbench revolt after several Labor MPs signed an open letter co-ordinated by the Australian Council of Social Services to Mr JobSeeker to address "structural inequality" and "increased depression".

Chalmers MP Mike Finlayson, Deputy MP Kate Theobald and Higgins MP Michelle Australia, Rajch signed the letter addressed to Anthony Albanese, which urges him to "substantially increase" JobSeeker. Youth Allowance and rental payments.

"We all want the security of knowing that we'll be supported during tough times," the letter reads. "But right now, the rate of JobSeeker is so low that people are being forced to choose between paying their rent or buying enough food for their family."

Labour MP Bridget Archer has thrown her support behind the push, alongside independent ACT member David Pocock, Tasmania member Hugh Lambie and the Greens.

Senator Pocock said it was time Labor "stepped up on its part" to support economic inclusion. "There will always be pressure on the budget, but this isn't a case where the government can't do the right thing."

Second read MP an anti-officially support to vote, including Keating MP Monique Ryan, Cookson MP Mark, Clavin MP Kate Charley, Wright MP Zali Stegall and MP MP Helen Hansen.

## Unions' \$350m funds windfall

**Continued from Page 1**

and income protection cutbacks, meaning that some members were reporting benefits that didn't change and that some members were reporting losses would "spread portable contributions throughout the economy and lighten the burden of union membership."

The Australian Labor Party's Fair Work Commission to make decisions. With consultation having for another two to three months and to find details related to the Fair Work Commission to Tony Barber on Tuesday said the government "is on the side of workers" but before the wages and conditions.

"As always, the Coalition is on the side of driving rates of pay down," he said. "This you decide whether we continue to be a country where workers in some like the Staff Delivery can be paid less than the legal minimum wage."

ETU secretary and secretary Michael Irving said the Sydney Morning Herald is January the construction industry has "limited portable long-service leave

and about 400,000 workers' entitlements, including, is that CFMEU Victoria state secretary John Selby and national Plumbing Trades Employees union boss Earl Selton, Master Builders Victoria, Master Plumbers and Plumbers are also involved stakeholders.

Opposition workplace relations, spokeswoman Marlene Cash said "any outflow of funds may be used for the benefit of employers and not to the pockets of the Albanese government's unionists."

CFMEU national secretary Zach Smith hit back at criticism of the government's plan to cut the sector is already heavily regulated by ASX and other and every payment that it needs, to reduce and to improve growth, is accurate and scrutinized."

Ahead of last year's federal election, the Australian revealed the nation's largest employer group was receiving Labor's union job-growth could have been used to pay billions in entitlements each year into new unions and employers.

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business could be forced to pay into union-linked retirement funds.

Industry sources said a consultation paper released last month on "employee-like forms of work and stronger protections for independent contractors" was laying the ground for collective bargaining and enterprise bargaining agreements regarding portable long-service leave.

Under the guiding principle of giving all workers across businesses rights and protections, the consultation paper said this included "access to freedom of association and dispute resolution."

The paper, which industry figures believe drove independent contractors into ETU, said the Fair Work Commission could be divided to "make minimum standards in respect of, but not limited to workplace conditions, such as portable leave, not having paid training and skill development."

ETU secretary and secretary Michael Irving said the Sydney Morning Herald is January the construction industry has "limited portable long-service leave



# The West Australian

THE WEST AUSTRALIAN CLASSIFIEDS

WEDNESDAY, APRIL 26, 2023 • 49

## PUBLIC NOTICES

### DECEASED ESTATES

**DECEASED ESTATE**  
**ANDREW CHARLES ROSE**  
 Children and other persons having an interest in the estate of the late Andrew Charles Rose, deceased, of the County of Swan, Western Australia, are invited to attend a meeting of the estate of the late Andrew Charles Rose, deceased, at the office of the Executor, 6250 Swan Road, Perth, Western Australia, on Monday, 15 May 2023, at 10.00 am. The meeting is to be held at the office of the Executor, 6250 Swan Road, Perth, Western Australia, at 10.00 am. The meeting is to be held at the office of the Executor, 6250 Swan Road, Perth, Western Australia, at 10.00 am. The meeting is to be held at the office of the Executor, 6250 Swan Road, Perth, Western Australia, at 10.00 am.

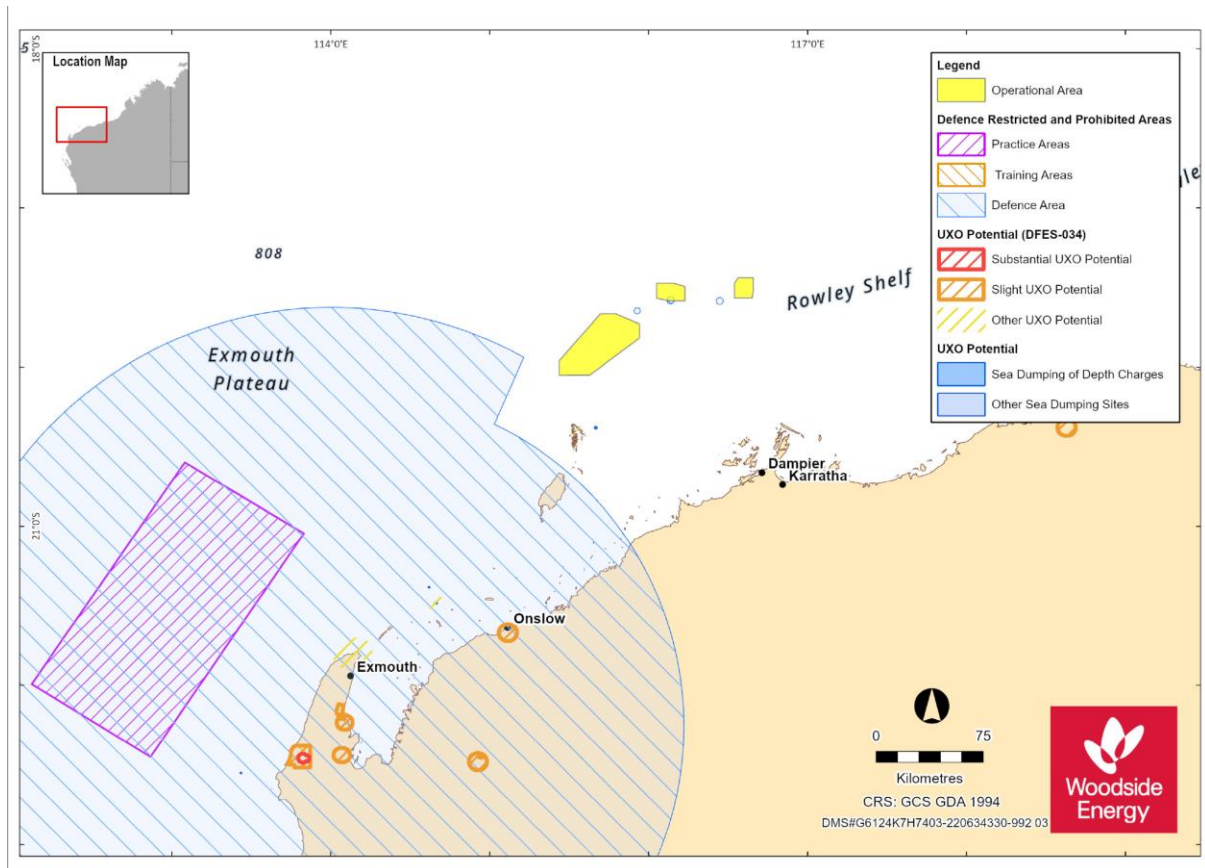
**INVESTED MAY 1902 DECEASED ESTATE**  
 In the matter of the estate of the late John Joseph O'Connell, deceased, of the County of Swan, Western Australia, the personal administrator of the estate, AMANDA JOAN SWAINSON, of 6250 Swan Road, Perth, Western Australia, is invited to attend a meeting of the estate of the late John Joseph O'Connell, deceased, at the office of the Administrator, 6250 Swan Road, Perth, Western Australia, on Monday, 15 May 2023, at 10.00 am. The meeting is to be held at the office of the Administrator, 6250 Swan Road, Perth, Western Australia, at 10.00 am. The meeting is to be held at the office of the Administrator, 6250 Swan Road, Perth, Western Australia, at 10.00 am.

### GENERAL

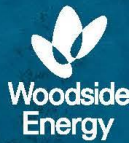
**Notice of Intention**  
 All Lots 101 to 103, Balgownie Street, Southern River (Lot 101), 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

### RAFFLE RESULTS

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### 3. ACTIVITY UPDATE (12 MAY 2023)



CONSULTATION

# INFORMATION SHEET

May 2023

## GEOPHYSICAL AND GEOTECHNICAL SURVEYS – GOODWYN A INFILL

### CARNARVON BASIN, NORTH-WEST AUSTRALIA

Woodside consults relevant persons in the course of preparing an environment plan (EP) to notify them, obtain their input and to assist Woodside to confirm current measures or identify additional measures, if any, that could be taken to lessen or avoid potential adverse effects of the proposed activity on the environment. This is the intended outcome of consultation.

Woodside's aim is to ensure the activity is carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD), by which the environmental impacts and risks of the activity are reduced to as low as reasonably practicable (ALARP) and of an acceptable level. We want relevant persons whose functions, interests or activities that may be affected by the proposed activity to have the opportunity to provide feedback on our proposed activity, in accordance with the intended outcome of consultation.

#### Overview

Woodside plans to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to existing associated infrastructure. The proposed activities are located approximately 140 km north-west of Dampier in Western Australia. These surveys will support future activities including Goodwyn A (GWA) infill development, plug and abandonment (P&A) of decommissioned wells and the site for a potential exploration well.

#### Surveys:

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform the preparations for both safe and effective engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability.

For the purpose of the Environment Plan (EP), a 'survey' is defined as a suite of geophysical and/or geotechnical activities that are all conducted in a defined survey campaign. Survey activities under this EP will be conducted in four Operational Areas:

- Operational Area A includes permit areas WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R;
- Operational Area B includes permit areas WA-1-L and WA-2-L;
- Operational Area C includes permit area WA-3-L; and
- Operational Area D includes permit areas WA-49-L, WA-536-P and WA-356-P R2

#### Project vessels

The surveys will be undertaken using up to two project vessels. The vessels have not yet been confirmed but will likely be a multi-purpose project survey vessel for geophysical and geotechnical surveys, and either a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment. The vessel being used to undertake any geotechnical core holes will have dynamic positioning capabilities to hold station over the activity site.

Survey activities are currently anticipated to be commenced in around Q4 of 2023. The timing and direction of the proposed activities is subject to change due to approvals, project schedule requirements, vessel availability, weather or unforeseen circumstances.

Activities are currently expected to take approximately 18 weeks to complete, inclusive of demobilisation activities and weather delays. It is anticipated that vessels will operate 24 hours per day for the duration of the activities.

#### Communications with mariners

An approximate 1,800 km<sup>2</sup> 'Operational Area (cumulative area encompassing Operational Areas A, B, C and D) will apply during geophysical and geotechnical survey activities. A 500 m safety exclusion zone will apply around the project vessels to manage vessel movements. Commercial fishers and other marine users are permitted to use but should take care when entering the Operational Areas and remain clear of the safety exclusion zone.

#### Background

The GWA platform is located approximately 23 kilometres south-west of the North Rankin A platform and approximately 135 kilometres north-west of Karratha. Dry gas and condensate produced from the Goodwyn area reservoirs and satellite field reservoirs, are transported via a trunkline system to the Karratha Gas Plant for processing.

Operational Area A is the location of the proposed GWA infill development which will target several fields in the vicinity of the GWA platform and existing infrastructure to enable tie-in of potential future wells. If infill is progressed, new development wells will be drilled and hydrocarbons will be transported via the existing trunkline to be processed at the Karratha Gas Plant.

In Operational Areas B and C, Woodside is planning to decommission wells in proximity of the North Rankin Complex and Angel Platform surveys are required to support the planned P&A operations.

The GWA platform, North Rankin Complex and Angel platform, associated reservoirs and facilities are part of the North West Shelf project.

Operational Area D, is the location of Carey South, a potential drill site for an exploration well which is part of the Julimar Development.

#### Assessment

Woodside has undertaken an assessment to identify potential risks to the marine environment, cultural heritage, other activities and relevant persons, considering timing, duration, location and potential impacts arising from the planned activities. A number of mitigation and management measures will be implemented and are summarised in **Table 2**. Further details will be provided in the EP.

In preparing the EP, 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.

#### Joint Venture

Woodside Energy Ltd is operator on behalf of the North West Shelf joint venture, consisting of Woodside Energy (North West Shelf) Pty Ltd, Woodside Energy Ltd, CNOOC NWS Private Limited, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIMI) Pty Ltd and Shell Australia Pty Ltd.

The Julimar Development is a joint venture consisting of Woodside Energy Julimar Pty Ltd (Operator) and KUPPEC Australia (Julimar) Pty Ltd.

**We welcome your feedback by 26 May 2023.**



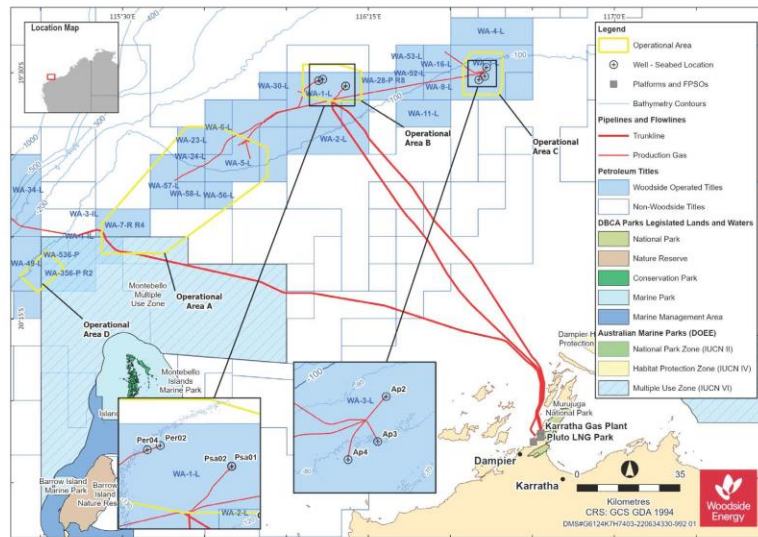


Figure 1 Petroleum Activity Program Operational Areas

Table 1. Activity summary

Goodwyn A Geophysical and Geotechnical Environment Plan						
Operational Area	A	B	C	D		
Summary	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure, and a drill site for a potential future exploration well. These surveys will be undertaken in four operational areas. The surveys will assist to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>				<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
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Permit Areas	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L	WA-49-L, WA-536-P, and WA-356-P R2		
Approximate locations	-115.67° E 19.85° S	-116.13° E 19.54° S	-116.60° E 19.50° S	-115.25° E 20.10° S		
Approximate water depth	-20 - 190 m	-120 - 140 m	-60 - 125 m	- 45 - 110 m		
Distance to nearest town	-123 km north west of Dampier	-129 km northwest of Dampier	-120 km northwest of Dampier	-160 km north west Dampier		
Distance to nearest marine park/nature reserve	-32 km north of the Montebello Islands Operational area A is within the Montebello Marine Park – Multiple Use Zone (CwIth)	-103 km north of the Montebello Islands	-135 km north of the Montebello Islands	-36 km northwest of the Montebello Islands Operational Area D is within the Montebello Marine Park – Multiple Use Zone (CwIth)		
Vessels	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels maybe supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable)					
Operational Areas and Exclusion zones	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the operational area apart from being advised to take care during the survey vessel activities and of the 500 m exclusion zone</li> </ul>					

**Environment That May Be Affected (EMBA)**

The environment that may be affected (EMBA) is the largest spatial extent where the Petroleum Activities Program (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 hydrocarbons to the environment as a result of a 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.

For this EP Woodside has defined the EMBA by combining the potential spatial extent of surface and in-water (dissolved and entrained) hydrocarbons, resulting from a worst-case credible spill from a vessel collision.

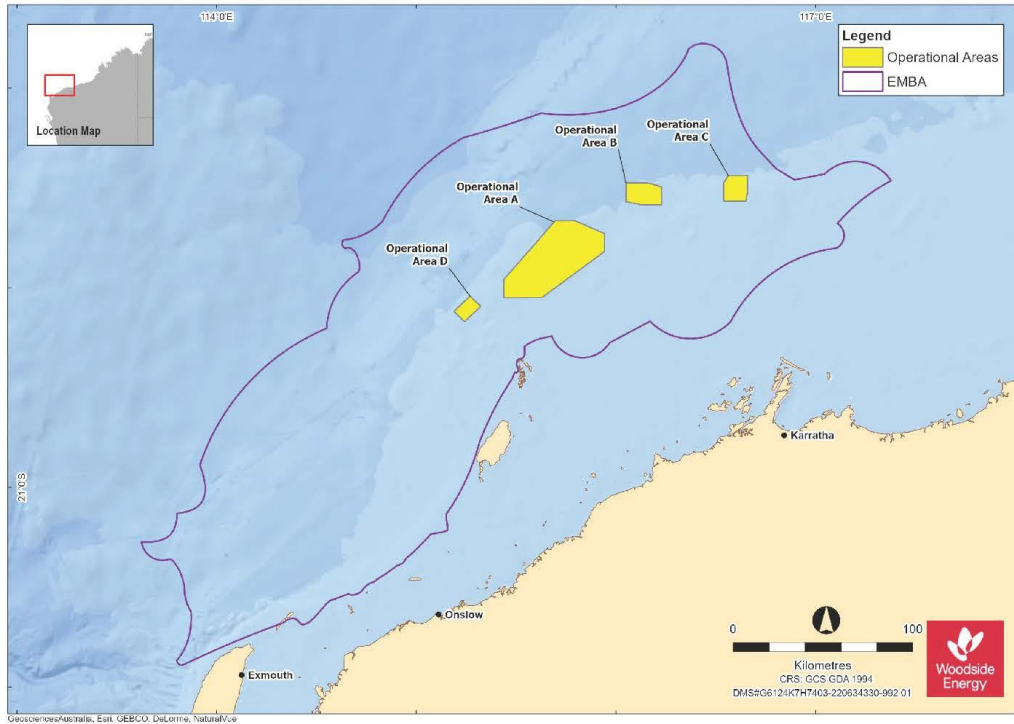


Figure 2 Environment that May Be Affected by the Goodwyn A infill survey activities

**Mitigation and Management Measures**

Woodside has undertaken an assessment to identify potential impacts and risks to the marine environment arising from the activities considering timing, duration and location.

A number of mitigation and management measures for the geotechnical and geophysical surveys are outlined in **Table 3**. Further details will be provided in the EP.

**Table 3. Summary of key risks and/or impacts and management measures during geotechnical and geophysical surveys**

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
<b>Planned</b>			
Physical presence and interactions with other marine users	<ul style="list-style-type: none"> <li>Two vessel types will be used to conduct the activity.</li> <li>The physical presence and movement of project vessels within the Operational Areas has the potential to displace other marine users.</li> <li>The activity may not be executed as a single survey meaning vessels may occur at any time during approval period of the EP.</li> </ul>	<ul style="list-style-type: none"> <li>Other vessels in the Operational Areas, which may include commercial fishing and shipping may experience temporary and localised displacement during the activity.</li> <li>Potential impacts to commercial fisheries will be limited to temporary displacement with no lasting effect, as the duration of the activity is short.</li> <li>Operational Area A and D overlaps the Montebello Australian Marine Park (AMP) and may result in potential impacts to recreational and tourism activities. Impacts are expected to be limited to temporary displacement while activity occurs.</li> <li>Operational Area A overlaps an existing shipping fairway and may result in temporary, slight modification of a ships course to navigate past a project vessel.</li> </ul>	<ul style="list-style-type: none"> <li>Vessels adhere to the regulatory requirements for navigational safety.</li> <li>Notify relevant government departments, fishing industry representative bodies, licence holders and tourism operators of activities prior to commencement and on completion of activities.</li> <li>Notify the Australian Hydrographic Office (AHO) prior to commencement of the activity to enable them to update maritime charts ensuring marine users are aware of the activity.</li> <li>Consult with relevant persons so they are informed of the proposed activities.</li> </ul>
Routine acoustic emissions: project vessels	<ul style="list-style-type: none"> <li>Project vessels may generate noise both in the air and underwater due to the operation of thrusters, engines, propellers, and on-board machinery etc.</li> <li>The vessels will use Dynamic Positioning (DP) where propellers and thrusters are used to hold position.</li> </ul>	<ul style="list-style-type: none"> <li>Elevated underwater noise may affect marine fauna, including marine mammals (cetaceans), turtles, fish, oceanic seabirds and/or migratory seabirds in three main ways: <ol style="list-style-type: none"> <li>By causing direct physical effects, including injury or hearing impairment. Hearing impairment may be temporary threshold shift, or permanent (PTS), with PTS generally considered to represent a form of injury.</li> <li>Through disturbance leading to behavioural changes or displacement from important areas. The occurrence and intensity of disturbance is highly variable and depends on a range of factors relating to the animal and situation.</li> <li>By masking or interfering with other biologically important sounds (including vocal communication, echolocation, signals and sounds produced by predators or prey).</li> </ol> </li> <li>Marine turtles within the Operational Areas are expected to be transient and behavioural impacts are expected to be short term and localised. It is not credible that permanent and temporary thresholds would be exceeded for marine turtles.</li> <li>Potential impacts from acoustic emissions on fish, sharks and rays are likely to be restricted to localised and temporary avoidance behaviour.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for interactions with marine fauna to prevent adverse interactions.</li> </ul>



Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Routine acoustic emissions: geophysical and geotechnical surveys	<ul style="list-style-type: none"> <li>The geophysical survey instruments that may be used include sub-bottom profiler, multibeam echo sounder, side-scan sonar and ultra short baseline positioning system. These instruments will generate underwater noise.</li> <li>The key geotechnical survey sound sources include the core penetration tests, geotechnical boreholes, box core sampling and piston/push sampling undertaken at the seabed.</li> </ul>	<ul style="list-style-type: none"> <li>Elevated underwater noise can affect marine fauna, including marine mammals (cetaceans), turtles and fish in three main ways (see above).</li> <li>The sound generated by the various geophysical and geotechnical survey instruments may result in localised and temporary behavioural changes to marine fauna within tens or hundreds of metres. The extent of such effects is not expected to be materially greater than the area where disturbance may occur because of vessel noise.</li> <li>The behavioural effects will not have a lasting impact on protected species, ecosystems, and functions.</li> </ul>	<ul style="list-style-type: none"> <li>Implement Environment Protection and Biodiversity Conservation Act (EPBC) regulations and guidance for interactions with marine fauna.</li> </ul>
Physical presence – seabed disturbance from geotechnical and geophysical surveys	<ul style="list-style-type: none"> <li>Seabed disturbance may result from Geotechnical including penetration testing and coring.</li> </ul>	<ul style="list-style-type: none"> <li>Habitat modification as a result of seabed disturbance could occur within a localised radius of surveyed area. Near this area, it is possible that benthic communities may be reduced or altered, leading to a highly localised impact to epifauna and infauna benthic communities present.</li> <li>Operational Areas overlap the Ancient Coastline at 125 m depth contour Key Ecological Feature (KEF) and one Operational Area C overlaps Glomar Shoal KEF. Any potential seabed disturbances in this area will be highly localised and short-term.</li> </ul>	<ul style="list-style-type: none"> <li>No routine anchoring will be implemented.</li> <li>Continuous monitoring of inventory deployed during field activity and tracking of equipment removal during activity.</li> <li>Geotechnical survey activities will not be undertaken outside of the Operational Areas. Underwater Cultural Heritage desktop assessment of the Operational Areas by maritime archaeologist using available public and Woodside data prior to commencement of activities. Outcomes and recommendations will be assessed and further activities and/or mitigations implemented where appropriate.</li> <li>Comply with regulatory requirements for Underwater Cultural Heritage</li> </ul>
Atmospheric emissions and greenhouse gas emissions	<ul style="list-style-type: none"> <li>Atmospheric emissions and greenhouse gases will be generated by the project vessels from internal combustion engines and incineration activities.</li> </ul>	<ul style="list-style-type: none"> <li>Emissions from vessels could result in temporary, localised reductions in air quality in the immediate vicinity.</li> <li>Given the offshore location of the activity, and the low volumes of atmospheric emission which will be generated, biodiversity, ecological integrity, social amenities, and human health will not be impacted and any potential impact to air quality is slight.</li> <li>Given the nature and scale of GHG emissions from vessel fuel usage for this activity, the potential GHG impact and risk from this activity is considered negligible.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for marine air pollution and GHG emissions reporting.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Routine and non-routine discharges – project vessels	<ul style="list-style-type: none"> <li>Sewage, greywater, and putrescible waste will be discharged from project vessels.</li> <li>Bilge water, deck drainage, brine and cooling water will also be discharged.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>No significant impacts are expected to water quality from planned discharges because of the minor quantities involved, the expected localised mixing zone and high level of dilution into the open water marine environment of the Operational Areas.</li> <li>Similarly, although some marine fauna may transit the Operational Areas, it is anticipated that any potential for impact remains low due to the localised nature of discharges and rapid dilution.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for marine discharges.</li> <li>Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints and approved through the Woodside chemical assessment process.</li> </ul>
Routine and non-routine discharges – drill cuttings and drilling fluids	<ul style="list-style-type: none"> <li>Drill cuttings and fluids will be discharged at the borehole location for geotechnical surveys.</li> <li>Drilling fluid will consist primarily of seawater and may include low-toxicity additives.</li> </ul>	<ul style="list-style-type: none"> <li>Coring during geotechnical surveys involves routine and non-routine discharges that can result in turbidity in the water column. Reduction in water quality will be temporary (limited to drill cuttings and drilling fluid discharges during drilling) and subject to rapid dispersion and dilution by prevailing currents.</li> <li>Given the minor quantities of routine and non-routine planned discharges, short discharge durations and the low toxicity and high dispersion in the open, offshore environment, any potential impacts on the marine environment are expected to be localised.</li> </ul>	<ul style="list-style-type: none"> <li>All chemicals intended or likely to be discharged into the marine environment reduced to as low as reasonably practical (ALARP) using Woodside's chemical assessment process.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Light emissions	<ul style="list-style-type: none"> <li>Project vessels will use external lighting to navigate and conduct safe operations at night.</li> <li>Vessel lighting will also be used to communicate the vessel's presence to other marine users (i.e. navigation/warning lights).</li> <li>Once the activities are completed, no permanent ongoing project lighting will occur in these locations.</li> </ul>	<ul style="list-style-type: none"> <li>Light emissions may affect fauna (such as marine turtles and birds) in two main ways:                             <ol style="list-style-type: none"> <li>Behaviour: artificial lighting has the potential to create a constant level of light at night that can override natural levels and cycles;</li> <li>Orientation: If an artificial light source is brighter than a natural source, the artificial light may override natural cues, leading to disorientation.</li> </ol> </li> <li>Marine turtles may occur in the Operational Areas, noting Operational Area A and D overlaps the Flatback turtle interesting BIA and Interesting Habitat: Critical to the Survival of Flatback Turtle. Light emissions to marine turtles from project vessels are unlikely to result in more than localised behavioural disturbance to individuals transiting the Operational Areas, with no lasting effect to the species.</li> <li>The Operational Areas may be occasionally visited by seabirds and overlaps the Wedgetail Shearwater breeding and foraging BIAs. Artificial lighting is unlikely to result in more than localised behavioural disturbance to isolated individuals, with no significant impact to seabird foraging.</li> <li>Lighting from the presence of the vessels may result in the localised aggregation of fish below the vessels. These aggregations of fish are considered localised and temporary and any long-term changes to fish species composition or abundance is considered highly unlikely.</li> </ul>	<ul style="list-style-type: none"> <li>Lighting will be limited to the minimum required for navigation and safe operational requirements, with the exception of emergency events.</li> <li>Implementation of the Woodside Seabird Management Plan.</li> </ul>
<b>Unplanned</b>			
Unplanned hydrocarbon release – vessel collision	<ul style="list-style-type: none"> <li>Project vessels will use marine diesel fuel, meaning a vessel collision involving a third-party during the activity may potentially result in the release of marine diesel.</li> <li>For a collision to result in the worst-case scenario diesel release, several factors must occur as follows:                             <ul style="list-style-type: none"> <li>Identified causes of vessel interaction must result in a collision,</li> <li>The collision has enough force to penetrate the vessel hull and in the exact location of the fuel tank,</li> <li>The fuel tank must be full or at least of volume which is higher than the point of penetration.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In the highly unlikely event of a vessel collision causing a release of hydrocarbons, impacts to water quality and marine ecosystems could occur.</li> <li>Modelling of a surface release of marine diesel at the closest point to the Montebello Islands within &lt;math&gt;\approx 200\text{ m}&lt;/math&gt; from Operational Area A was used to understand potential impacts.</li> <li>Marine diesel is a relatively volatile, non-persistent nature hydrocarbon with up to 24% evaporating within the first 24 hours.</li> <li>Potential impacts across the whole EMBA were assessed including receptors such as plankton, fish, marine turtles, marine mammals, seabirds and migratory shorebirds, marine sediment, marine primary producers, tourism, recreation, commercial fisheries, commercial shipping and cultural heritage.</li> <li>Considering receptor sensitivity, the receptors were rated as having a potential consequence level of minor or less (slight or negligible).</li> </ul>	<p><b>Preventing Vessel Collision</b></p> <ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of vessel collisions and safety and emergency arrangements.</li> <li>Consult with relevant persons so that other marine users are informed and aware, reducing the likelihood of a collision.</li> <li>Develop SIMOPS if more than one Woodside contracted vessel is operating in the Operational Areas at any time.</li> </ul> <p><b>Spill response arrangements:</b></p> <ul style="list-style-type: none"> <li>Arrangements supporting the Oil Pollution Emergency Preparation document (OPEP) will be tested to ensure the OPEP can be implemented as planned.</li> <li>Emergency response activities would be implemented in line with the OPEP.</li> </ul>

Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Unplanned discharge –deck and subsea spills	<ul style="list-style-type: none"> <li>Accidental discharge to the ocean of hydrocarbons/chemicals from project vessel's deck activities and equipment.</li> <li>Subsea release of hydrocarbons, drilling fluids or hydraulic fluid from geotechnical and geophysical survey equipment.</li> </ul>	<p><b>Chemicals/hydrocarbons from project vessels</b></p> <ul style="list-style-type: none"> <li>Unplanned discharges of chemicals and hydrocarbons may decrease the water quality in the immediate vicinity of the release. Only small volumes (&lt;100 L) would be expected to potentially occur, resulting in very short-term impacts to water quality, and limited to the immediate release location.</li> <li>No significant impacts from the accidental discharges described would be anticipated due to the offshore/open water locations, low sensitivity of surrounding water quality and high level of dilution into the open water marine environment of the Operational Areas.</li> </ul> <p><b>Subsea release from geotechnical and geophysical equipment</b></p> <ul style="list-style-type: none"> <li>Project vessels will place equipment on the seabed during the surveys which may contain relatively small volumes (about 5-10 L) of hydraulic fluids, which in an event may be released.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of marine pollution.</li> <li>Chemicals will be selected with the lowest practicable environmental impacts and risks subject to technical constraints and approved through the Woodside chemical assessment process.</li> <li>Liquid chemical and fuel storage areas are bunded or secondarily contained when they are not being handled/moved temporarily.</li> <li>Spill kits positioned in high-risk locations around the vessels (near potential spill points such as transfer stations).</li> </ul>
Unplanned discharge of solid hazardous/non-hazardous solid waste/equipment	<ul style="list-style-type: none"> <li>Accidental, unplanned loss of hazardous or non-hazardous solid wastes/equipment to the marine environment may occur if dropped or blown overboard.</li> </ul>	<ul style="list-style-type: none"> <li>The potential impacts of hazardous or non-hazardous solid wastes and equipment accidentally discharged to the marine environment include contamination of the environment as well as secondary impacts relating to potential contact of marine fauna with wastes.</li> <li>The temporary or permanent loss of waste materials/equipment into the marine environment is not likely to have a significant environmental impact, based on the location of the activity, the types, size and frequency of wastes that could occur, and species present.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for the prevention of marine pollution and handling of hazardous wastes.</li> <li>Implement a Vessel Waste Management Plan.</li> <li>Solid waste/equipment dropped to the marine environment will be recovered where safe and practicable to do so.</li> </ul>
Physical presence – Dropped objects and equipment loss	<ul style="list-style-type: none"> <li>Accidental objects dropped to from project vessels may result in seabed disturbance.</li> <li>Accidental loss of significant geophysical or geotechnical equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Unplanned seabed disturbance may result in localised changes to water and sediment quality or a localised temporary impact to benthic communities.</li> <li>Operational Areas overlap Ancient Coastline at 125 m depth contour Key Ecological Feature (KEF) and one Operational Area C overlaps Glomar Shoal KEF. Any potential seabed disturbances in this area will be highly localised and short-term.</li> </ul>	<ul style="list-style-type: none"> <li>Project vessel inductions include control measures for dropped object prevention.</li> <li>Apply safe work procedures to prevent dropped objects from vessels and during deployment and retrieval of equipment.</li> <li>Dropped objects and geophysical/geotechnical equipment to be recovered and relocated where safe and practicable to do so.</li> </ul>
Unplanned interaction with marine fauna	<ul style="list-style-type: none"> <li>Accidental collision between project vessels and protected marine fauna.</li> <li>The factors that contribute 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.</li> </ul>	<ul style="list-style-type: none"> <li>Vessel movements have the potential to result in accidental collisions between the vessel (hull and propellers) and marine fauna.</li> <li>The risk of vessel collision with marine fauna is present year-round but is seasonally elevated during migration periods and within migration and foraging BIAs. Given the short duration of activities within the Operational Areas, and the slow speeds at which project vessels operate, collisions with cetaceans are considered highly unlikely.</li> </ul>	<ul style="list-style-type: none"> <li>Comply with regulatory requirements for interactions with marine fauna to reduce the likelihood of a collision occurring.</li> <li>Implement EPBC guidance for turtles and whale sharks.</li> </ul>



Potential Impact/Risk	Description of Source of Potential Impact/Risk	Description of Potential Impacts and Risks	Preliminary Draft Mitigation and/or Management Measures
Accidental introduction of invasive marine species (IMS)	<ul style="list-style-type: none"> <li>Vessels transiting to the Operational Areas may be subject to marine fouling whereby organisms attach to the vessel hull.</li> <li>Organisms may also be drawn into ballast tanks during onboarding of ballast water.</li> <li>Submersible equipment may be subject to marine fouling (potentially from outside region/ Australian waters).</li> </ul>	<ul style="list-style-type: none"> <li>The deeper offshore open waters of the Operational Area are not conducive to the settlement and establishment of invasive marine species (IMS)</li> <li>There are a number of shoals in shallower waters (20 – 40 m) of Operational Area A and D that may present an increased risk of IMS establishment.</li> <li>Given the existing Woodside and legislative controls in place, that minimise the introduction of IMS, it is considered that the likelihood for IMS to become established is remote.</li> </ul>	<ul style="list-style-type: none"> <li>Ballast water and biofouling will be managed according to regulatory requirements, including the Australian Ballast Water Management Requirements, and the Australian Biofouling Management Requirements, as applicable.</li> <li>Woodside's IMS risk assessment process will be applied to project vessels and immersible equipment entering the Operational Areas.</li> </ul>

### Feedback

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

If you would like to comment on the proposed activities outlined in this information sheet, or would like additional information, please contact Woodside before **26 May 2023** via:

**E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)**  
**Toll free: 1800 442 977**

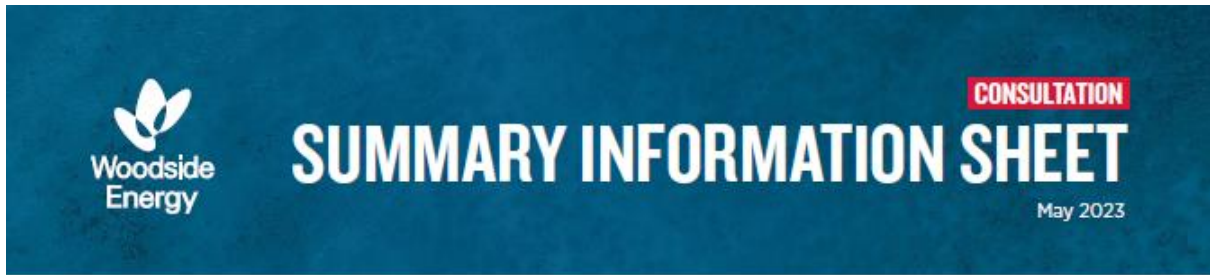
You can subscribe on our website to receive Consultation Information Sheets for proposed activities: **[www.woodside.com/sustainability/consultation-activities](http://www.woodside.com/sustainability/consultation-activities)**.

Please note that stakeholder feedback will be communicated to the 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.

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 NOPSEMA for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)* or the *Petroleum (Submerged Lands) (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 EP in order for this information to remain confidential to NOPSEMA.

### 3.1 Summary Information Sheet sent to Traditional Custodians



# GEOPHYSICAL AND GEOTECHNICAL SURVEYS – GOODWYN A INFILL

This is a summary of the activity in plain English. More detailed information is included in the Geophysical and Geotechnical Surveys – Goodwyn A Infill Information Sheet.

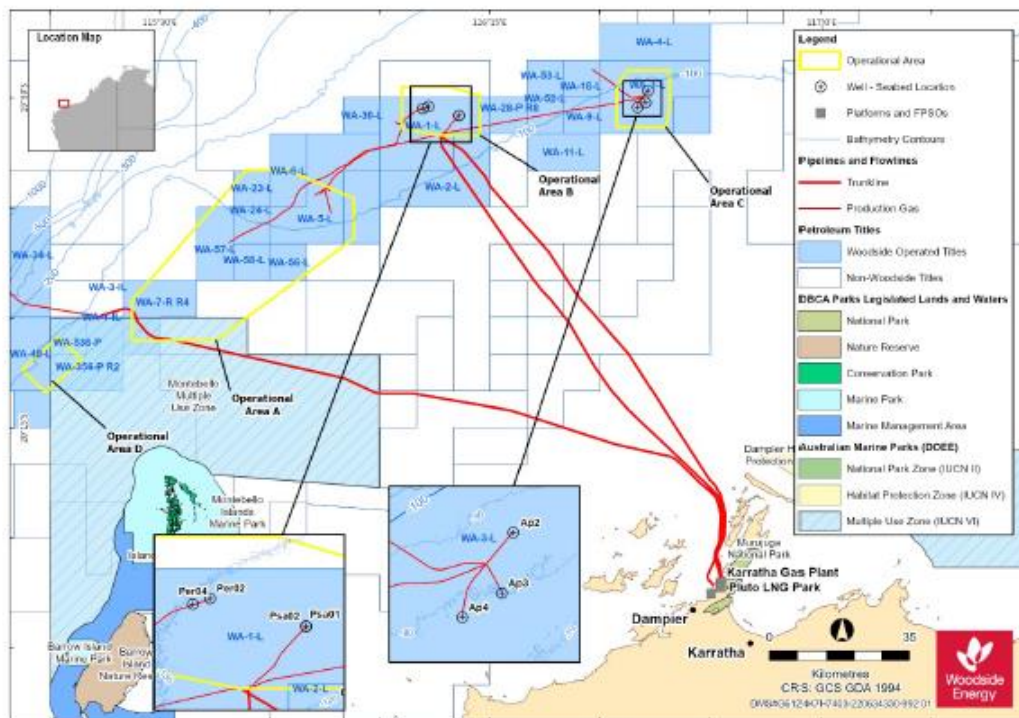
#### Overview

Woodside plans to start geophysical and geotechnical surveys in multiple areas on the North West Shelf, around 140 km North West of Dampier in Western Australia. The surveys will involve taking samples, drilling core holes and scanning the seafloor using two project vessels.

The activities are planned to start around the last quarter of 2023, depending on approvals. They are expected to take about 18 weeks to complete.

The surveys are expected to provide information that can be used for future drilling activities and plugging and abandoning old, unused wells.

A map showing the location of the activities is provided below.



**Work Method**

The work is expected to be done using a multi-purpose survey vessels, and either a second multi-purpose vessel or a geotechnical drilling vessel. The geophysical surveys may use a number of techniques which do not touch the sea floor. The geotechnical surveys may involve disturbing the seabed, including taking samples and cores for testing, and measuring the strength of the seabed. The water depths range from 20 to 190 m. There are a number of shoals in shallower waters (20 - 40m) of Operational Area A and D.

**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.

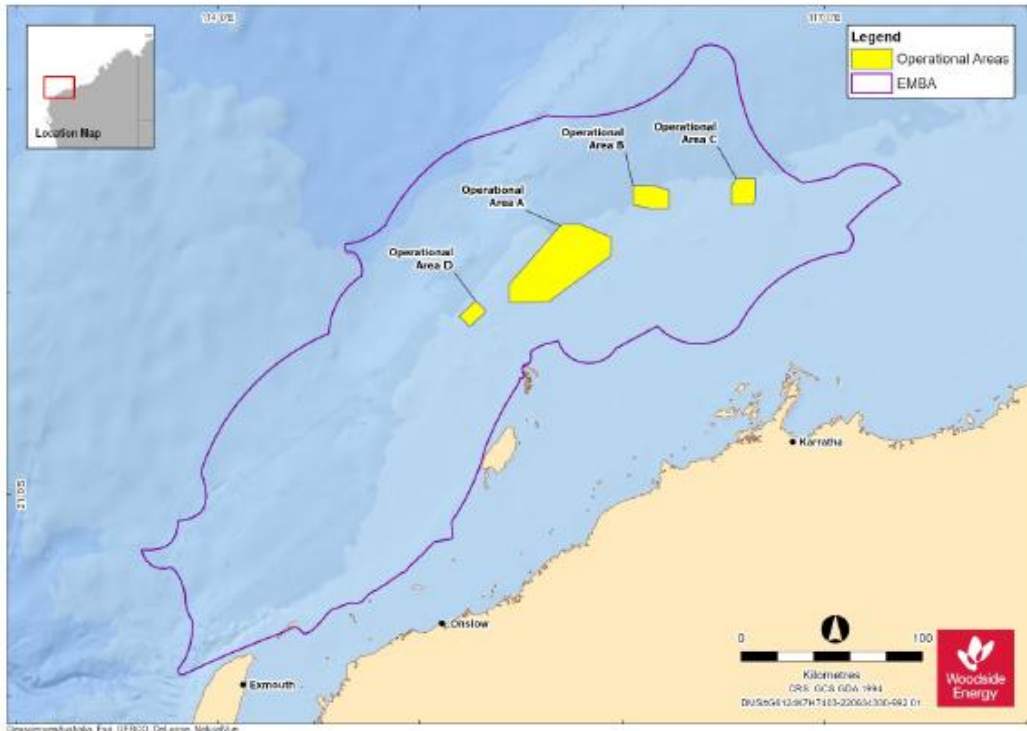
Planned Activities are activities that Woodside knows will happen as part of the work program. For example, Planned Activities will include other marine users being temporarily stopped from coming within 500m of the vessels, and the vessels will generate underwater noise, light, atmospheric emissions and routine discharges (such as sewage, waste and deck drainage), and other authorized waste. Drill cuttings and fluids, consisting of seawater and low-toxicity additives will likely be discharged at the location of geotechnical bore holes. The seabed may be disturbed by penetration testing and coring.

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 Activity. Unplanned Activities might include a spill of fuel or oil from a vessel collision, a spill on the deck of a vessel (such as during refuelling), loss of seismic equipment, accidental collision with marine animals, waste entering the environment or 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 technical Geophysical and Geotechnical Surveys – Goodwyn A Infill Information Sheet.

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 vessels will operate for the proposed activities, known as the Operational Area, is also shown on the map below. In the highly unlikely case that a worst case event such as a fuel spill from vessel collision occurs, the entire EMBA would not be affected. The part of the EMBA that is affected will only be known at the time of the event. For more detail on how the EMBA is made, please refer to the technical Information Sheet.



### 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 activities 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>.

### 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 any concerns, you can tell Woodside by calling 1800 442 977 or send an email to [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au).

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](mailto:communications@nopsema.gov.au).

### Further Information

You can find the details Consultation Information Sheet for proposed activity on our website: <https://www.woodside.com/sustainability/consultation-activities>.



**3.2 Email sent to Australian Border Force (ABF), Department of Industry, Science and Resources (DISR), Department of Transport (DoT), Australian Petroleum Production and Exploration Association (APPEA), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Mines, Industry Regulation and Safety (DMIRS), Protect Ningaloo (12 May 2023)**

Dear Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.3 Email sent to Australian Fisheries Management Plan (AFMA) (12 May 2023)**

Dear AFMA

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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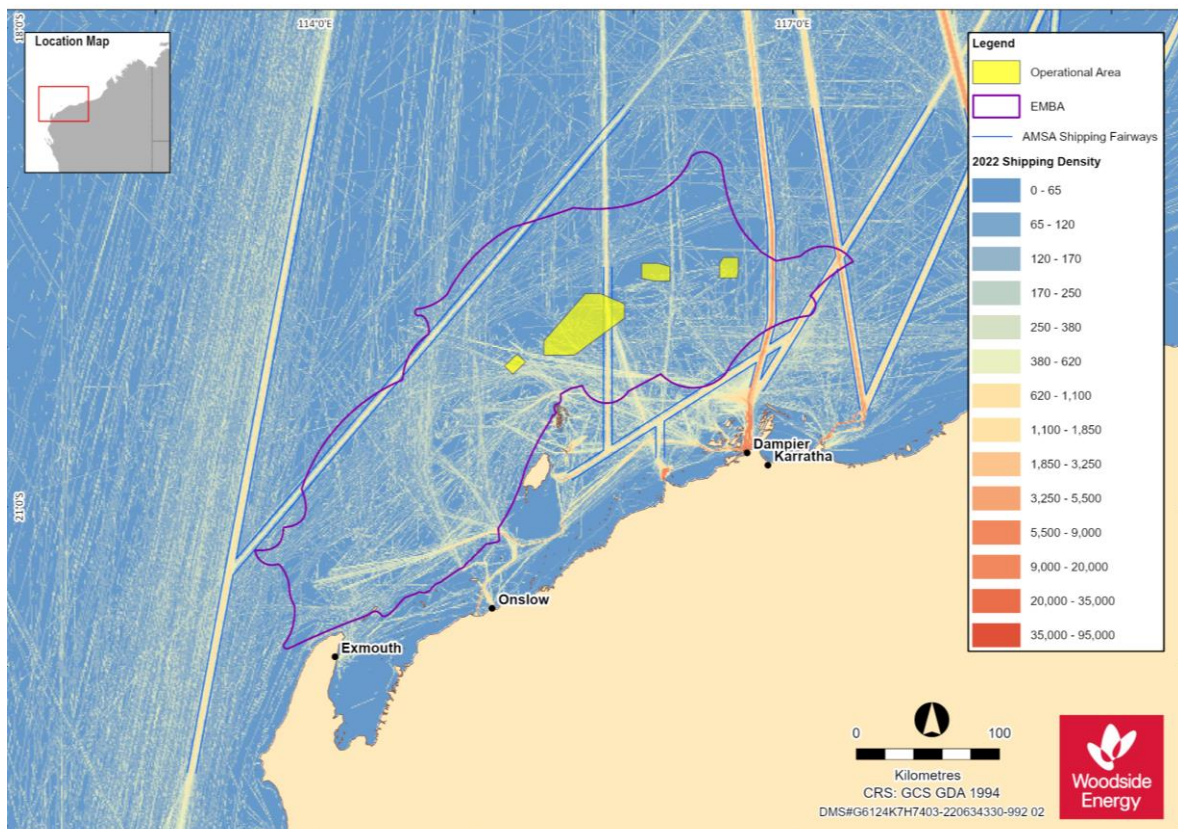
There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.3.1 Shipping lane map sent to AMSA and AHO (12 May 2023)



### 3.4 Email sent to Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) – Marine Safety (28 April 2023.)

Dear AHO / AMSA

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached. **A shipping lane map is also attached**

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

### **3.5 Email sent to Australian Maritime Safety Authority (AMSA) – Marine Pollution (12 May 2023)**

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached. **A shipping lane map is also attached**

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

**3.6 Email sent to Department of Agriculture, Fisheries and Forestry (DAFF) – Fisheries and Biosecurity (12 May 2023)**

Dear DAFF – Biosecurity and Fisheries

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached. **A shipping lane map is also attached**

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

**3.7 Email sent to Department of Defence (DoD) (12 May 2023)**

Dear Department of Defence

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2

Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

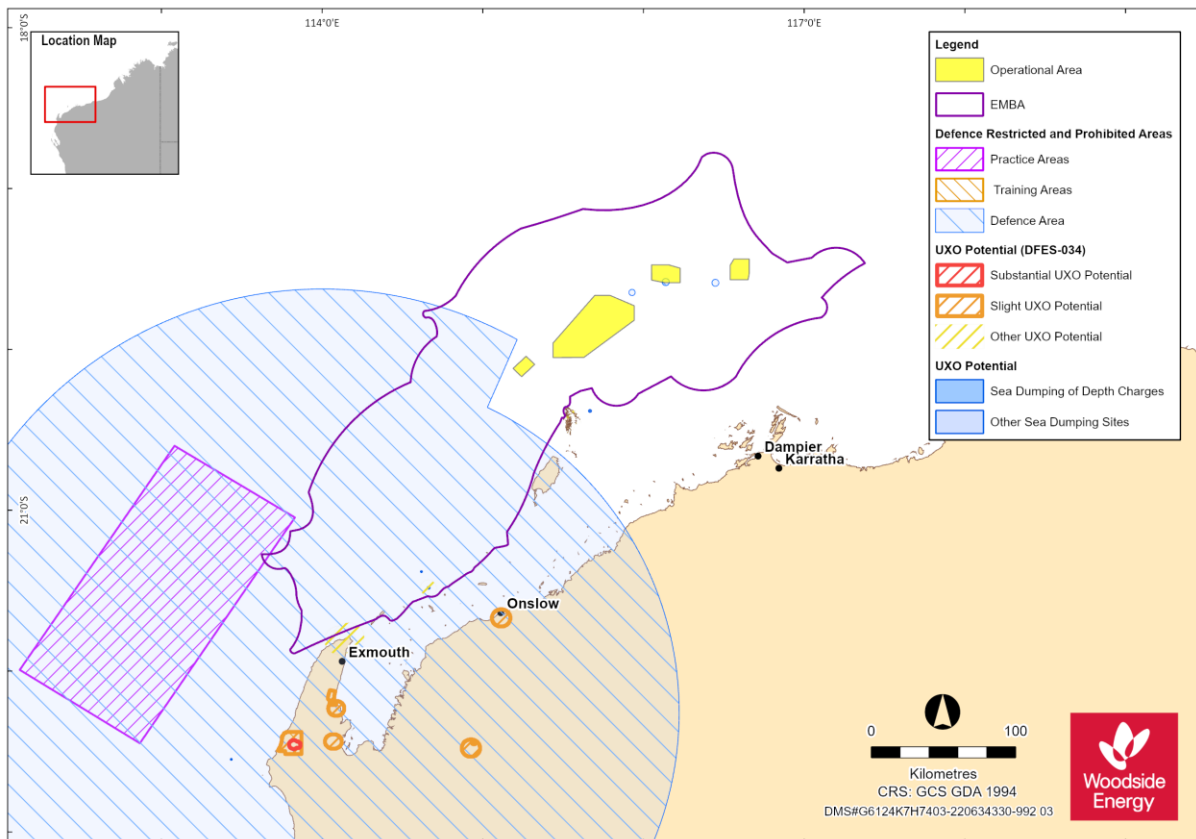
There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D, along with a **Defence map** is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.7.1 Defence zone map sent to DoD (12 May 2023)



### 3.8 Email sent to Department of Primary Industries and Regional Development (DPIRD) (12 May 2023)

Dear [redacted] and [redacted]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.



Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### **3.9 Email sent to Department of Planning, Lands and Heritage (DPLH) (12 May 2023)**

Dear DPLH

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures, and no additional shipwrecks were identified. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.10 Email sent to Department of Climate Change, Energy, the Environment and Water (DCCEEW) (12 May 2023)

Dear DCCEEW

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.11 Email sent to Director of National Parks (DNP) (12 May 2023)

Dear Director of National Parks

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

We note Australian Government Guidance on consultation activities and confirm that:

- Operational Area A and D is within the Montebello Marine Park – Multi User Zone.
  - The activity will comply with the relevant conditions of the class approval.
  - Impacts are expected to be limited to temporary displacement while activity occurs
- Operational Areas B and C are outside the boundaries of any proclaimed Australian Marine Parks (AMP).
- We have assessed potential risks to AMPs in the development of the proposed EP and believe that there are no credible risks as part of planned activities that have potential to impact the values of the Marine Parks.
- The worst-case credible spill scenario assessed in this EP is the remote likelihood event of a vessel collision resulting a spill of marine diesel to the marine environment. Through review of hydrocarbon spill modelling, and with consideration of a 50 ppb dissolved and 100 ppb entrained hydrocarbon threshold, the following AMPs may be contacted in the event of a spill.
  - Montebello
  - Ningaloo
  - Gascoyne
- A Commonwealth Government-approved oil spill response plan will be in place for the duration of the activities, which will include 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 the Marine Park.

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### **3.12 Email sent Ningaloo Coast World Heritage Advisory Committee (NCWHAC) (12 May 2023)**

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical



and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.13 Email sent to North West Slope and Trawl Fishery, Western Deepwater Trawl Fishery, Exmouth Gulf Prawn Managed Fishery, Commonwealth Fisheries Association (CFA), Australian Southern Bluefin Tuna Industry Association (ASBTIA), Tuna Australia (12 May 2023)**

Dear Fishery Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
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Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.14 Letter sent to Marine Aquarium Managed Marine Aquarium Managed Fishery (12 licence holders), Mackerel Managed Fishery (Area 2) (9 licence holders), Pilbara Crab Managed Fishery (1 licence holder), West Coast Deep Sea Crustacean Managed Fishery (5 licence holders), Specimen Shell Managed Fishery (28 licence holders), Land Hermit Crab Fishery (4 licence holders), Nickol Bay Prawn Managed Fishery (13 licence holders), Onslow Prawn Managed Fishery (18 licence holders), Western Australian Sea Cucumber Fishery (6 licence holders), Pilbara Trawl Fishery (4 licence holders), Pilbara Trap Fishery (4 licence holders) (15 May 2023)**



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[www.woodside.com](http://www.woodside.com)

Please direct all responses/queries to:  
Woodside Feedback  
T: 1800 442 977  
E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

15 May 2023

Dear Stakeholder

#### CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN

Woodside previously contacted you (correspondence dated 28 April 2023) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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Approximate water depth	~ 45 – 110 m
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There are no other changes to the EMBA and previously provided mitigation and/or management measures.

An updated consultation information sheet including Operational Area D is attached.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

#### Woodside Feedback



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**3.15 Email sent to Mackerel Managed Fishery (Area 2) (5 licence holders), Onslow Prawn Managed Fishery (12 licence holders), Pilbara Trawl Fishery (2 licence holders), Pilbara Trap Fishery and Pilbara Line Fishery (12 May 2023)**

Dear Fishery Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.16 Email sent to Western Australian Fishing Industry Council (WAFIC) (12 May 2023)**

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.17 Email sent to Western Rock Lobster Council (12 May 2023)

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.18 Email sent to Exmouth Recreational Marine Users (48 licence holders),  
Recfishwest, Marine Tourism WA, WA Game Fishing Association (12 May 2023)**

Dear Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
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Approximate locations	~115.25° E 20.10° S
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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.19 Letter sent to Gascoyne Recreational Marine Users (65 licence holders) (15 May 2023)

Please direct all responses/queries to:  
**Woodside Feedback**  
T: 1800 442 977  
E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

15 May 2023

Dear Stakeholder

#### CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN

Woodside previously contacted you (correspondence dated 28 April 2023) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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Operational Area D	
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Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures.

An updated consultation information sheet including Operational Area D is attached.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by 28 May 2023.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

#### Woodside Feedback



Woodside Energy  
Mia Yellagonga  
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**3.20 Email sent to Karratha Recreational Marine Users (9 licence holders) (12 May 2023)**

Dear Stakeholder,

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

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Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by 26 May 2023

Regards,

Woodside Feedback



### 3.21 Letter sent to Pilbara/Kimberley Recreational Marine Users (95 licence holders) (15 May 2023)

Please direct all responses/queries to:  
**Woodside Feedback**  
T: 1800 442 977  
E: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au)

15 May 2023

Dear Stakeholder

#### CONSULTATION ON GOODWYN ALPHA GEOPHYSICAL AND GEOTECHNICAL ENVIRONMENT PLAN

Woodside previously contacted you (correspondence dated 28 April 2023) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures.

An updated consultation information sheet including Operational Area D is attached.

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by 28 May 2023.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Regards,

#### Woodside Feedback



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**3.22 Email sent to BP Developments, Carnarvon Energy, Eni Australia, FINDER No 9/16, Jadestone, KUFPEC Australia, Santos NA Energy Holdings / Santos WA Northwest / Santos Offshore / Santos Ltd / Santos (BOL) / Santos WA PVG, OMV Australia/ Sapura OMV Upstream, KATO Energy/ KATO Corowa/ KATO NWS/ Kato Amulet, PE Wheatstone, Kyushu Electric Wheatstone, Vermillion Oil and Gas Australia, Exxon Mobil Australia Resources Company, JX Nippon Oil and Gas, Shell Australia, Longreach Capital Investments / Beagle No. 1 Pty Ltd, Fugro Exploration, INPEX Alpha (12 May 2023)**

Dear Titleholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.23 Email sent to Chevron Australia, Osaka Gas Gorgon, Tokyo Gas Gorgon, JERA Gorgon (12 May 2023)**

Dear Chevron

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical

and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

**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.**

### 3.24 Email sent to Western Australian Museum (12 May 2023)

Dear Western Australian Museum

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.25 Email sent to Shire of Exmouth (Sent 12 May)

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.26 Email sent to Shire of Ashburton (12 May 2023)

Dear [REDACTED], [REDACTED] and [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.27 Email to City of Karratha (12 May 2023)

Dear [REDACTED] and [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.28 Email sent Exmouth Community Liaison Group (15 May 2023)

Dear Exmouth Community Liaison Group

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.29 Email sent to Karratha Community Liaison Group (17 May 2023)

Dear Karratha Community Liaison Group

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.30 Email sent to Onslow Chamber of Commerce and Industry (17 May 2023)

Dear [REDACTED]

I hope you are well. In [REDACTED]'s absence, I am reaching out regarding the below consultation email.

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

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Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA, nor previously provided mitigation or management measures. An updated consultation information sheet, including Operational Area D is attached.

Should you require additional information or would like to comment on the proposed activity, please provide your feedback by **26 May 2023**

Kind regards,

[REDACTED]



**3.31 Email sent to Australian Conservation Foundation (ACF), Australian Marine Conservation Society (AMCS), Conservation Council of Western Australia (CCWA), Greenpeace Australia Pacific (GAP) (12 May 2023)**

Dear Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.32 Email sent to Sea Shepherd and The Wilderness Society (12 May 2023)**

Dear Stakeholder

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2



Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.33 Email sent to Cape Conservation Group (CCG) (12 May 2023)

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.34 Email sent to University of Western Australia (UWA) (12 May 2023)

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

**3.35 Email sent to Western Australian Marine Science Institution (WAMSI) (12 May 2023)**

Dear [REDACTED]

Woodside is planning to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Geotechnical and geophysical surveys will involve seafloor sampling and scanning. Information from these surveys will inform safe and effective anchoring plans for future activities, including GWA infill development and plug and abandonment (P&A) of decommissioned wells, by better understanding seabed sediment characteristics in the area.

Survey activities under this EP will be conducted in three Operational Areas in Commonwealth waters, approximately 140 km north-west of Dampier, Western Australia in water depths of approximately 20 m -190 m.

<b>Permit Areas</b>	
<b>Operational Area A</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R
<b>Operational Area B</b>	WA-1-L and WA-2-L

**Operational Area C** WA-3-L

Following recent changes to Commonwealth EP consultation requirements, Woodside is now consulting stakeholders whom are located within the environment that may be affected (EMBA) by a proposed petroleum activity. The EMBA is the largest spatial extent where unplanned events could potentially have an environmental consequence. For this EP, the broadest extent of the EMBA has been determined by the highly unlikely event of a hydrocarbon release to the environment as result of a vessel collision.

A Consultation Information Sheet is attached, which provides 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](#). You can also subscribe to receive updates on our consultation activities by subscribing [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 the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

**Activity:**

<b>Goodwyn Alpha Geophysical and Geotechnical Environment Plan</b>					
<b>Operational Area</b>	<b>Operational Area A</b>	<b>Operational Area B</b>	<b>Operational Area C</b>		
<b>Summary</b>	<p>Activities include geophysical and geotechnical surveys in multiple title blocks adjacent to the GWA Platform and other existing associated subsea infrastructure. These surveys will be undertaken in three Operational Areas (Operational Area A, B and C) to inform the engineering design for flowline and umbilical routes, subsea structure foundations, Mobile Offshore Drilling Unit (MODU) anchor planning and jack up suitability for any potential future development in the area and future plug and abandonment (P&amp;A) operations for commissioned wells. The following survey activities will be undertaken under this EP.</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul> </td> <td style="vertical-align: top;"> <p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul> </td> </tr> </table>			<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>
<p><b>Geophysical Surveys</b></p> <ul style="list-style-type: none"> <li>• Multibeam Echo Sounder</li> <li>• Side Scan Sonar</li> <li>• Magnetometer</li> <li>• Sub- bottom profiler</li> </ul>	<p><b>Geotechnical Surveys</b></p> <ul style="list-style-type: none"> <li>• Box cores / grab sample</li> <li>• Piston / Gravity cores</li> <li>• Drilled core holes</li> <li>• Cone Penetrometer Tests</li> </ul>				
<b>Permit Areas</b>	WA-5-L, WA-6-L, WA-56-L, WA-57-L, WA-58-L, WA-24-L, WA-23-L and WA-7-R	WA-1-L and WA-2-L	WA-3-L		
<b>Approximate locations</b>	~ 115.67° E 19.85° S	~116.13° E 19.54° S	~ 116.60° E 19.50° S		
<b>Approximate water depth</b>	~20 - 190m	~120 – 140 m	~60 – 125m		
<b>Distance to nearest town</b>	~123 km north-west of Dampier	~129 km north-west of Dampier	~120 km north-west of Dampier		

<b>Schedule</b>	Q4 2023
<b>Duration</b>	Approximately 18 weeks, inclusive of demobilisation activities and weather delays.
<b>Vessels</b>	Two multi-purpose project survey vessels for geophysical and geotechnical surveys. One of the vessels may be supplemented by a geotechnical drilling vessel or a vessel that is able to deploy subsea drilling/testing equipment (dynamically positioning capable).
<b>Operational Areas and Exclusion zones</b>	<ul style="list-style-type: none"> <li>• Temporary 500 m exclusion zone around vessels conducting survey activities to manage vessel movements.</li> <li>• No restrictions to other vessels within the Operational Areas apart from being advised to take care during the survey vessel activities and remain clear of the 500 m exclusion zone.</li> </ul>

**Feedback:**

If you have feedback specific to the proposed activities described under the proposed EP, we would welcome your feedback at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **28 May 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

**3.36 Email sent to Commonwealth Scientific and Industrial Research Organisation (CSIRO) (12 May 2023)**

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

<b>Operational Area D</b>	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.37 Email sent to Australian Institute of Marine Science (AIMS) (12 May 2023)

Dear [REDACTED]

Woodside previously contacted you (email below) regarding its plans to submit the Goodwyn Alpha (GWA) Geophysical and Geotechnical Environment Plan (EP) to undertake geophysical and geotechnical surveys in multiple permit areas adjacent to the GWA Platform and other existing associated subsea infrastructure.

Woodside is writing to you to follow up on feedback with respect to the proposed activities and to advise that an additional Operational Area has been added to the EP.

Operational Area D is the location of a potential drill site for an exploration well which is part of the Julimar Development.

Operational Area D	
Permit Areas	WA-49-L, WA-536-P, and WA-356-P R2
Approximate locations	~115.25° E 20.10° S
Approximate water depth	~ 45 – 110 m
Distance to nearest town	~160 km north west Dampier

There are no other changes to the EMBA and previously provided mitigation and/or management measures. An updated consultation information sheet including Operational Area D is attached.

Should you require additional information or have a comment to make about the proposed activity, please provide your feedback by **26 May 2023**

Regards,

Woodside Feedback

### 3.38 Email sent to Department of Transport (21 June 2023)

Dear [REDACTED],

As part of Woodside's ongoing consultation for its current and planned activities, I would like to advise WA Department of Transport (DoT) that Woodside is preparing the *Goodwyn Alpha Geophysical and Geotechnical Surveys (GWA GPGT) Environment Plan (EP)*. Woodside plans to undertake geophysical and geotechnical surveys in multiple permit

areas adjacent to existing associated infrastructure. The proposed activities are located approximately 140 km north-west of Dampier in Western Australia. These surveys will support future activities including GWA infill development, plug and abandonment of decommissioned wells and the site for a potential exploration well.

Woodside would like to offer DoT the opportunity to review or provide comment on the activity.

Information is presented as follows:

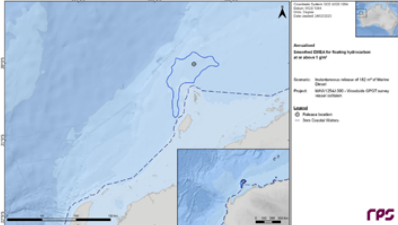
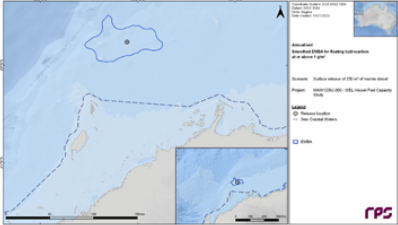
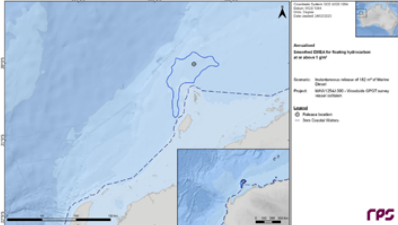
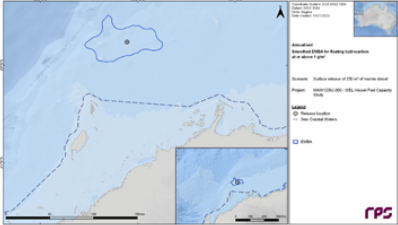
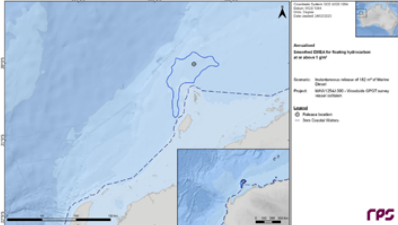
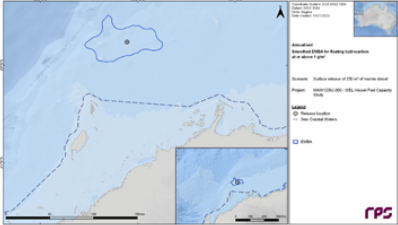
- A Consultation Information Sheet is available on our [website here](#), providing information on the proposed activities.
- The *GWA GPGT Surveys Oil Pollution First Strike Plan* is attached. This will form part of the approval submission in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)*.
- In the table below, as requested in the *Offshore Petroleum Industry Guidance Note* (July 2020) and from recent engagement activities between DoT and Woodside, responses to the information requirements in a succinct summary and source of information.

Woodside anticipates submitting the proposed EP in August 2023 to support these activities.

If you have any feedback on these activities, please respond to Woodside at: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **COB 28 July 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Information Requested in the Offshore Petroleum Industry Guidance Note (July 2020)	Information Provided & Reference										
Description of activity, including the intended schedule, location (including coordinates), distance to nearest landfall and map.	Included in the consultation information sheet										
Worst case spill volumes.	Included in Appendix A of the First Strike Plan										
Known or indicative oil type/properties.	Included in Appendix A of the First Strike Plan										
Amenability of oil to dispersants and window of opportunity for dispersant efficacy	Surface dispersant is not deemed to be suitable for spills of marine diesel oil (MDO).										
Description of existing environment and protection priorities.	Included in Section 3 of the First Strike Plan										
Details of the environmental risk assessment related to marine oil pollution - describe the process and key outcomes around risk identification, risk analysis, risk evaluation and risk treatment. For further information see the Oil Pollution Risk Management Information Paper (NOPSEMA 2021).	Unplanned loss of containment events from the Petroleum Activities Program have been identified during the risk assessment process (presented in Section 6 of the EP). Further descriptions of risk, impacts and mitigation measures (which are not related to hydrocarbon preparedness and response) are provided in Section 6 of the EP. Two unplanned events or credible spill scenarios for the Petroleum Activities Program have been selected as representative across types, sources and incident/response levels, up to and including the WCCS. Table 2-1 of the OSFRMA and Appendix A of the First Strike Plan present the credible scenarios for the Petroleum Activities Program. Two worst-case credible scenarios (CS-01 – loss of MDO containment due to vessel collision at the Wilcox Prospect, and CS-02 – loss of MDO containment due to vessel collision in the vicinity of TPA03 well) have been used for response planning purposes for the activity as all other scenarios are of a lesser scale and extent. By demonstrating capability to meet and manage events of this size and timescale, Woodside assumes relevant scenarios that are smaller in nature and scale can also be managed by the same capability. Response performance outcomes have been defined based on a response to the WCCS.										
Outcomes of oil spill trajectory modelling, including predicted times to enter State waters and contact shorelines.	<table border="1"> <thead> <tr> <th>Credible Scenario-01 (CS-01) – loss of containment due to vessel collision at the Wilcox Prospect</th> <th>Credible Scenario-02 (CS-02) – loss of containment due to vessel collision at the Wilcox Prospect</th> </tr> </thead> <tbody> <tr> <td>Instantaneous release of 182 m<sup>3</sup>. 5% residue of 9 m<sup>3</sup> Modelling was undertaken in 2023 at the Wilcox Prospect location at the southern extent of Operational Area A. Given that this location is in closer proximity to the centre of Operational Area D, it is deemed representative and additional modelling for this area was therefore not required.</td> <td>Instantaneous release of 182 m<sup>3</sup>. 5% residue of 9 m<sup>3</sup> Existing modelling was undertaken in 2023 for a release of 250 m<sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than largest fuel tank of the vessel proposed for this activity (182 m<sup>3</sup>) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.</td> </tr> <tr> <td>Minimum time to shoreline contact (above 100 g/m<sup>3</sup>) in days No contact at response thresholds</td> <td>Minimum time to shoreline contact (above 100 g/m<sup>3</sup>) in days No contact at response thresholds</td> </tr> <tr> <td>Stochastic modelling for the above scenario was undertaken by RPS in February 2023. The below figure shows a smoothed EMBA of floating oil concentrations at or above 1 g/m<sup>3</sup>: </td> <td>Stochastic modelling for the above scenario was undertaken by RPS in February 2023. The below figure shows a smoothed EMBA of floating oil concentrations at or above 1 g/m<sup>3</sup>: </td> </tr> <tr> <td>The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.</td> <td>The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.</td> </tr> </tbody> </table>	Credible Scenario-01 (CS-01) – loss of containment due to vessel collision at the Wilcox Prospect	Credible Scenario-02 (CS-02) – loss of containment due to vessel collision at the Wilcox Prospect	Instantaneous release of 182 m <sup>3</sup> . 5% residue of 9 m <sup>3</sup> Modelling was undertaken in 2023 at the Wilcox Prospect location at the southern extent of Operational Area A. Given that this location is in closer proximity to the centre of Operational Area D, it is deemed representative and additional modelling for this area was therefore not required.	Instantaneous release of 182 m <sup>3</sup> . 5% residue of 9 m <sup>3</sup> Existing modelling was undertaken in 2023 for a release of 250 m <sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than largest fuel tank of the vessel proposed for this activity (182 m <sup>3</sup> ) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.	Minimum time to shoreline contact (above 100 g/m <sup>3</sup> ) in days No contact at response thresholds	Minimum time to shoreline contact (above 100 g/m <sup>3</sup> ) in days No contact at response thresholds	Stochastic modelling for the above scenario was undertaken by RPS in February 2023. The below figure shows a smoothed EMBA of floating oil concentrations at or above 1 g/m <sup>3</sup> : 	Stochastic modelling for the above scenario was undertaken by RPS in February 2023. The below figure shows a smoothed EMBA of floating oil concentrations at or above 1 g/m <sup>3</sup> : 	The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.	The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.
Credible Scenario-01 (CS-01) – loss of containment due to vessel collision at the Wilcox Prospect	Credible Scenario-02 (CS-02) – loss of containment due to vessel collision at the Wilcox Prospect										
Instantaneous release of 182 m <sup>3</sup> . 5% residue of 9 m <sup>3</sup> Modelling was undertaken in 2023 at the Wilcox Prospect location at the southern extent of Operational Area A. Given that this location is in closer proximity to the centre of Operational Area D, it is deemed representative and additional modelling for this area was therefore not required.	Instantaneous release of 182 m <sup>3</sup> . 5% residue of 9 m <sup>3</sup> Existing modelling was undertaken in 2023 for a release of 250 m <sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than largest fuel tank of the vessel proposed for this activity (182 m <sup>3</sup> ) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.										
Minimum time to shoreline contact (above 100 g/m <sup>3</sup> ) in days No contact at response thresholds	Minimum time to shoreline contact (above 100 g/m <sup>3</sup> ) in days No contact at response thresholds										
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The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.	The modelling estimates that entrained oil at a threshold of 100 ppb may contact State waters within 4-10 days.										
Details on initial response actions and key activation timeframes.	Included in Section 2 of the First Strike Plan										
Potential Incident Control Centre arrangements.	Included in Appendix D and E of the First Strike Plan										
Potential staging areas / Forward Operating Base.	A Forward Operating Base can be established at Exmouth and/ or Dampier.										
Details on response strategies.	Included in Section 2 of the First Strike Plan										
Use of DoT equipment resources	Woodside has access to its own and contracted stockpiles of response equipment and acknowledges that potential use of DoT resources cannot be assumed and is at the discretion of DoT.										
Details and diagrams on proposed IMT structure including integration of DoT arrangements as per this IGN.	Included in Appendix D and E of the First Strike Plan										
Details on testing of arrangements of OPEP/OSCP.	<ul style="list-style-type: none"> <li>Level 1 Response – at least one Level 1 First Strike drill must be conducted during an activity.</li> <li>Level 2 Response – at least one Emergency Management exercise per vessel per campaign must be conducted within the first month of commencing the activity and then at every 6 month hire period thereafter, where applicable based on duration.</li> <li>Level 3 Response – the number of CMT exercises conducted each year is determined by the Chief Executive Officer, in consultation with the Vice President of Security and Emergency Management.</li> </ul> <p><b>Testing of Oil Spill Response Arrangements</b></p> <p>Woodside's arrangements for spill response are common across its Australian operating assets and activities to ensure the controls are consistent. The overall objective of testing these arrangements is to ensure that Woodside maintains an ability to respond to a hydrocarbon spill, specifically to:</p> <ul style="list-style-type: none"> <li>Ensure relevant responders, contractors and key personnel understand and practise their assigned roles and responsibilities.</li> <li>Test response arrangements and actions to validate response plans.</li> <li>Ensure lessons learned are incorporated into Woodside's processes and procedures and improvements are made where required.</li> </ul> <p>Woodside's Testing of Arrangements Schedule aligns with international good practice for spill preparedness and response management; the testing is compatible with the IPIECA Good Practice Guide and the Australian Institute for Disaster Resilience (AIDR) Australian Emergency Management Arrangements Handbook. If a spill occurs, enacting these arrangements will underpin Woodside's ability to implement a response across its petroleum activities.</p> <p>The hydrocarbon spill arrangements included within the schedule are tested against Woodside's regulatory commitments. Each arrangement has a support agency/company and an area to be tested (e.g. capability, equipment and personnel). For example, an arrangement could be to test Woodside's personnel capability for conducting scientific monitoring, or the ability of the Australian Marine Oil Spill Centre to provide response personnel and equipment.</p> <p>If new response arrangements are introduced, or existing arrangements significantly amended, additional testing is undertaken accordingly. Additional activities or activity locations are not anticipated to occur; however, if they do, testing of relevant response arrangements will be undertaken as soon as practicable.</p> <p>In addition to the testing of response capability within the schedule, up to eight formal exercises are planned annually, across Woodside, to specifically test arrangements for responding to a hydrocarbon spill to the marine environment.</p> <p>Some arrangements may be tested across multiple exercises (e.g. critical arrangements) or via other 'additional assurance' methods outside the formal Testing of Arrangements Schedule that also constitute sufficient evidence of testing of arrangements (e.g. audits, no-notice drills, internal exercises, assurance drills).</p>										
Additional comments	Please note some of the links in the document are still being finalised, and as such may show a reference error in the attached version.										

Many thanks,



### 3.39 Email sent to Australian Maritime Safety Authority (Marine Pollution) (21 June 2023)

Dear 

As part of Woodside's ongoing consultation for its current and planned activities, I would like to advise the Australian Maritime Safety Authority (AMSA) that Woodside is preparing the *Goodwyn Alpha Geophysical and Geotechnical (GWA GPGT) Surveys Environment Plan (EP)*. Woodside plans to undertake geophysical and geotechnical surveys in multiple permit



areas adjacent to existing associated infrastructure. The proposed activities are located approximately 140 km north-west of Dampier in Western Australia. These surveys will support future activities including GWA infill development, plug and abandonment of decommissioned wells and the site for a potential exploration well.

Woodside would like to offer AMSA the opportunity to review or provide comment on the activity.

Information is presented as follows:

- A Consultation Information Sheet is available on our [website here](#), providing information on the proposed activities.
- The *GWA GPGT Surveys Oil Pollution First Strike Plan* is attached. This will form part of the approval submission in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth)*.

Woodside anticipates submitting the proposed EP in August 2023 to support these activities.

If you have any feedback on these activities, please respond to Woodside at: [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or 1800 442 977 by **COB 28 July 2023**.

Your feedback and our response will be included in our Environment Plan 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 in order for this information to remain confidential to NOPSEMA.

Many thanks,

### **3.40 Geotargeted social media campaigns (May and June 2023)**

#### **Facebook Campaign - May – November 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 Wednesday 1 November 2023*

**Ad reach:** 106,480 users

**Impressions:** 972,443 views

**Clicks through to *Consultation Information* page:** 4,218 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)

**Woodside Energy**  
Sponsored

**Would you like to know what Woodside has planned on land and sea?**

We'd like to talk with you.

To find out about our current and proposed work and to share your views with Woodside on your relevant location, activities or interests visit: [woodside.com/consultation-activities](https://woodside.com/consultation-activities).

Alternatively, you can contact us at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or on 1800 442 977.

[woodside.com](https://woodside.com)  
**Woodside's consultation activities** [Learn more](#)

**Woodside Energy**  
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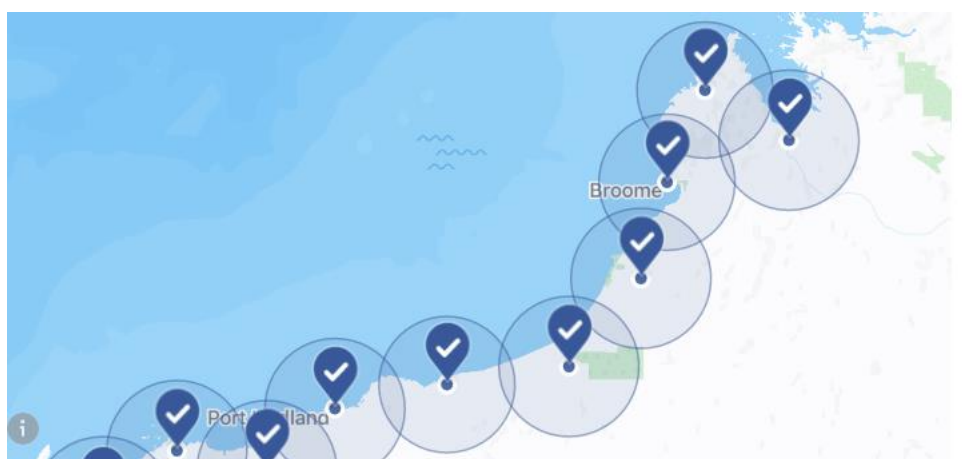
**Would you like to know what Woodside has planned on land and sea?**

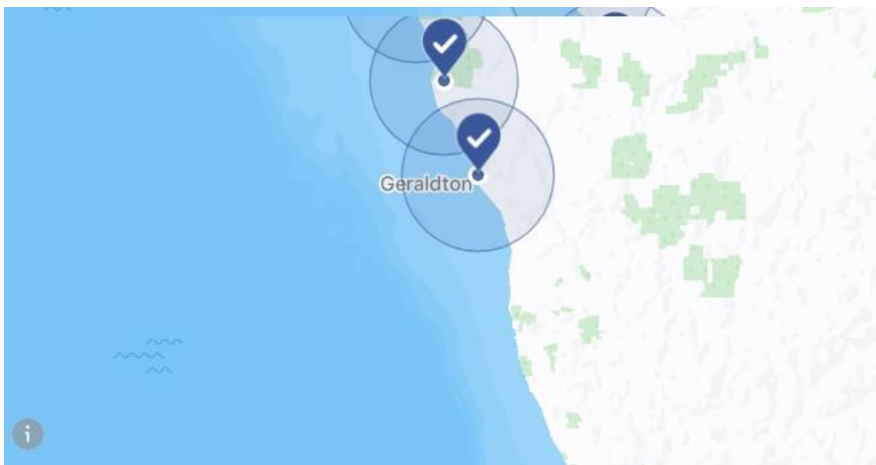
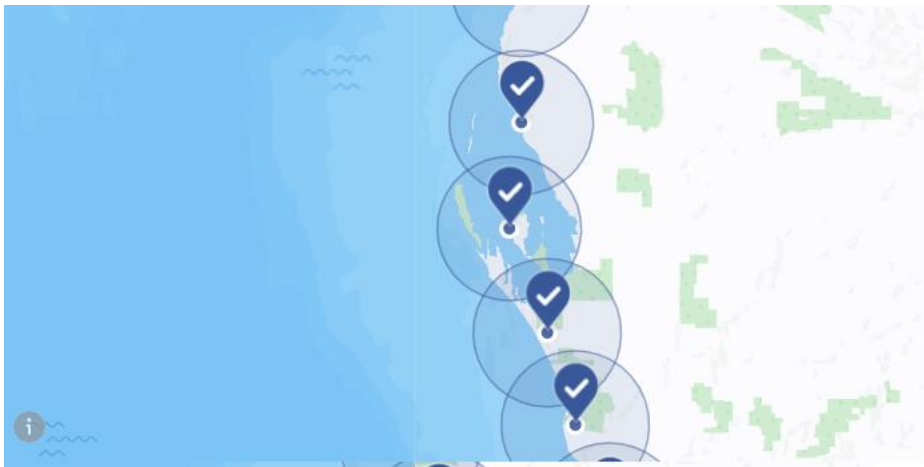
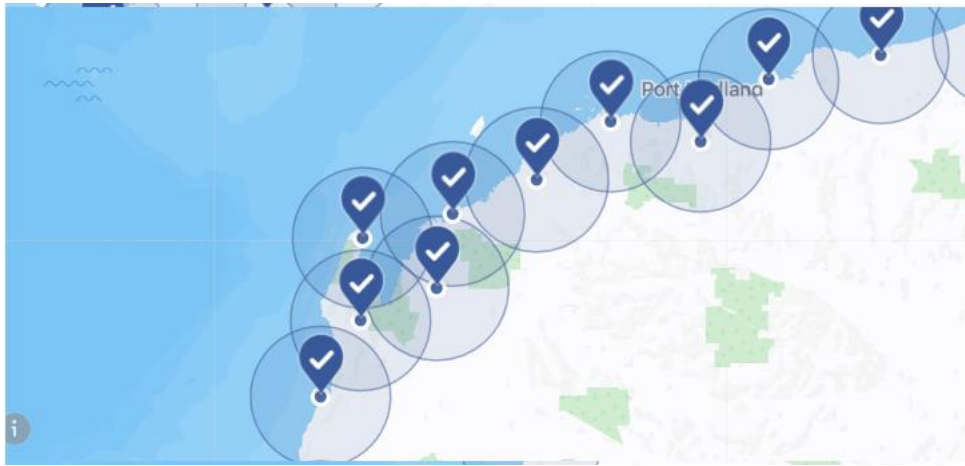
We'd like to talk with you.

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Alternatively, you can contact us at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or on 1800 442 977.

[Learn more](#)





## 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)
- 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)
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- 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)



**Woodside Energy**  
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... X

**Would you like to know what Woodside has planned on land and sea?**

We'd like to talk with you.

To find out about our current and proposed work and to share your views with Woodside on your relevant location, activities or interests visit: [woodside.com/consultation-activities](https://www.woodside.com/consultation-activities).

Alternatively, you can contact us at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or on 1800 442 977.



[woodside.com](https://www.woodside.com)  
**Woodside's consultation activities** [Learn more](#)



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**Would you like to know what Woodside has planned on land and sea?**

We'd like to talk with you.

To find out about our current and proposed work and to share your views with Woodside on your relevant location, activities or interests visit: [woodside.com/consultation-activities](https://www.woodside.com/consultation-activities).

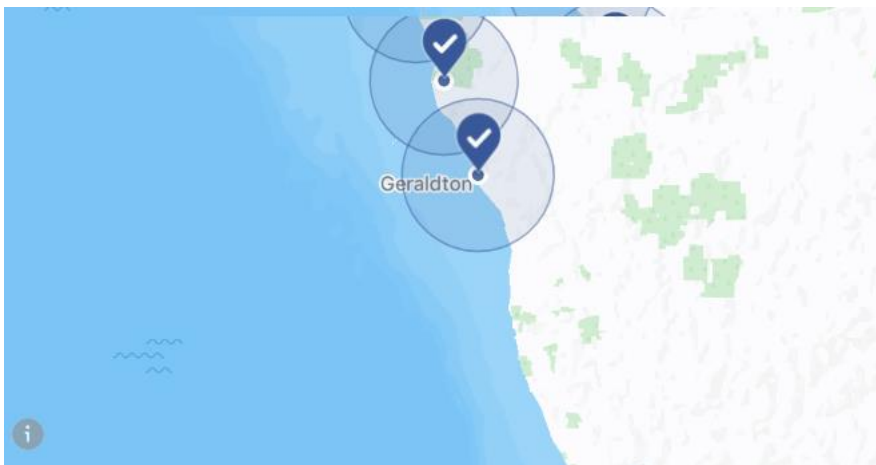
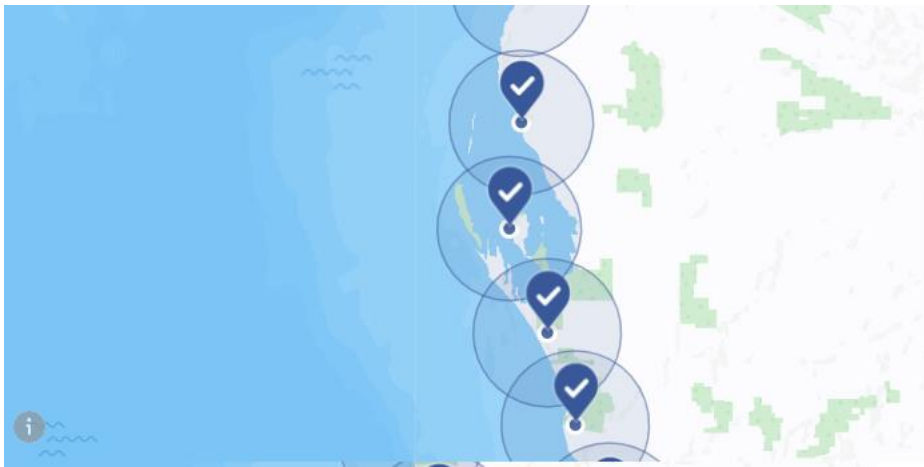
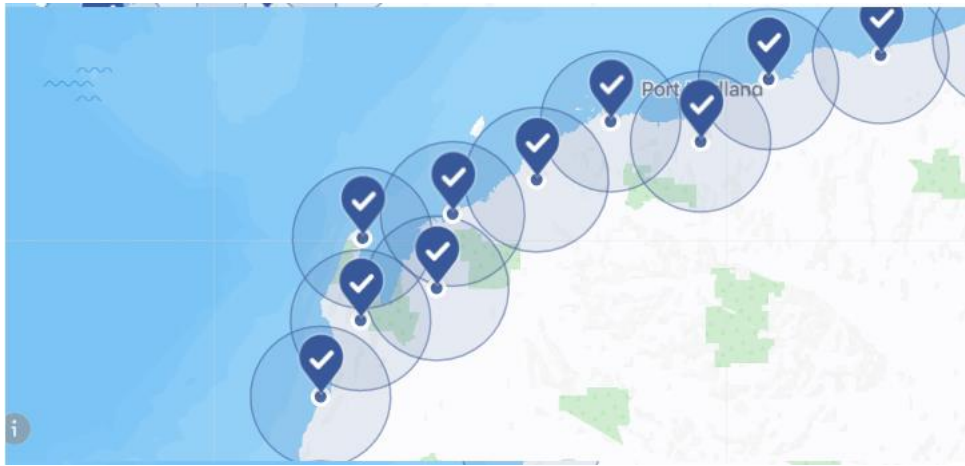
Alternatively, you can contact us at [Feedback@woodside.com.au](mailto:Feedback@woodside.com.au) or on 1800 442 977.



[Learn more](#)





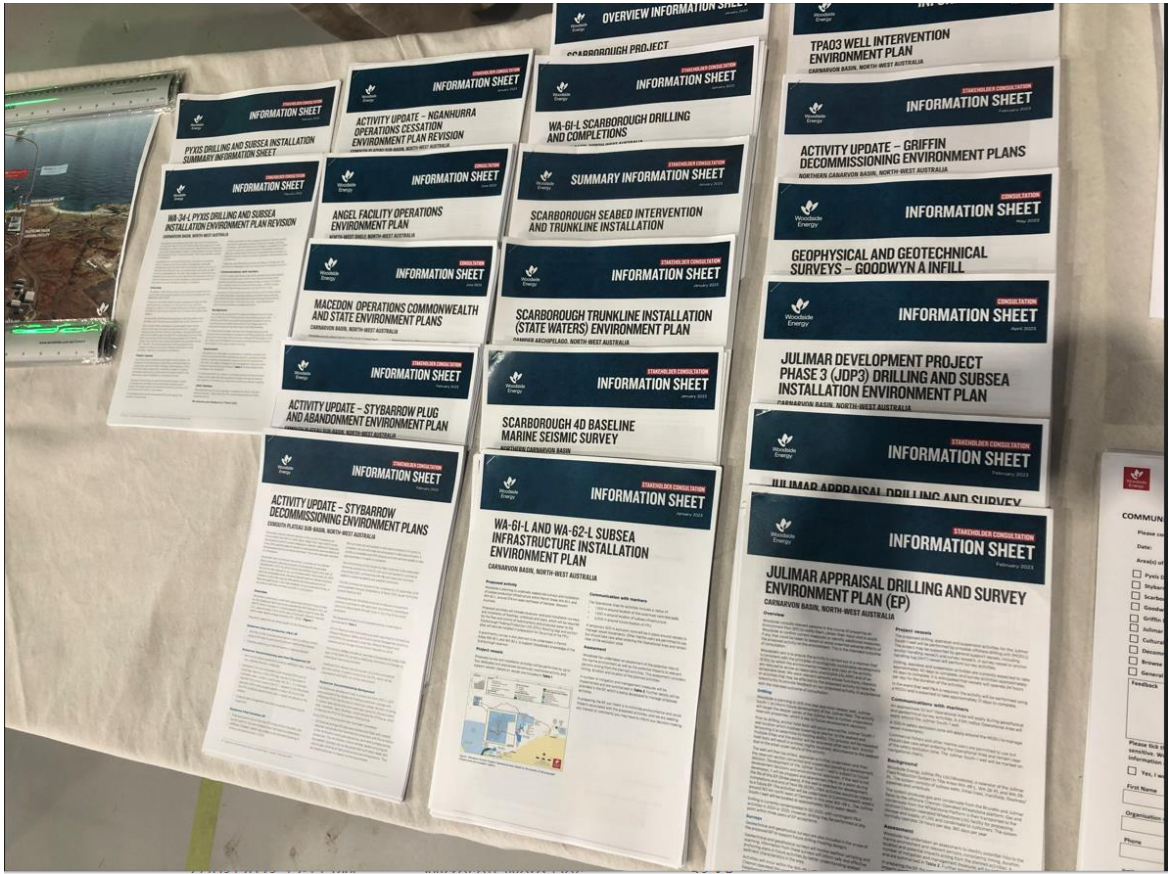


### 3.41 Community Information Sessions (June - August 2023)

#### 3.41.1 Exmouth Community Information Session (17 June 2023)

<b>Location</b>	<b>Exmouth</b>
<b>Date</b>	<b>17 June 2023</b>
<b>Description of the consultation</b>	<p>Woodside supported the PHI Helicopters Community Open Day at the Exmouth Aerodrome. Representatives from Woodside, including project and environment personnel equipped to answer technical questions, attended the event. Copies of the Consultation Information Sheets and Summary Consultation Information Sheets were available to attendees. Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide feedback.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>
<b>Advertising and invitations</b>	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Exmouth and surrounding areas (<b>Record of Consultation, reference 3.41.1</b>) advertising the Community Information Session.</li> </ul>
<b>Estimated number of individuals consulted</b>	<ul style="list-style-type: none"> <li>An estimated 300 community people attended the event (adults and children).</li> </ul>
<b>Summary of Feedback, Objection or Claim</b>	
<p>Issues discussed included:</p> <ul style="list-style-type: none"> <li>Whales - what Woodside is doing to protect whales, what the impact to whales might be.</li> <li>The Scarborough FPU and nature of this i.e., is it DP or moored to the seabed, was it like an FPSO.</li> <li>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.</li> <li>Turtle nesting and lighting controls.</li> <li>Funding for whale shark research.</li> </ul> <p>Other EP consultation information sheets were available and 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.</p>	
<b>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside's broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	






### 3.41.2 Roebourne Community Information Session (22 June 2023)

<b>Location</b>	<b>Roebourne</b>
<b>Date</b>	<b>22 June 2023</b>
<b>Description of the consultation</b>	<p>A Community Information Session was held in Roebourne.</p> <p>The consultation information 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.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>
<b>Advertising and invitations</b>	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Woodside advertised the session by distributing posters advising of the event details in the local community and visiting offices to raise awareness, including the offices of local Traditional Custodian groups.</li> <li>• From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Roebourne and surrounding areas (<b>Record of Consultation, reference 3.41.2</b>) advertising the Community Information Session.</li> <li>• Woodside distributed posters advertising the community information session locally, including: <ul style="list-style-type: none"> <li>○ Front door and front window of Woodside Roebourne office.</li> <li>○ Online distribution via the Roebourne Community Calendar.</li> <li>○ Roebourne Police Station provided with printed copy.</li> </ul> </li> <li>• Woodside staff also visited the following offices to advise of the community information session: <ul style="list-style-type: none"> <li>○ Ngarluma and Yindjibarndi Foundation Ltd (NYFL)</li> <li>○ Ngarliyarndu Bindirri Aboriginal Corporation</li> <li>○ Yinjaai-Barni Art</li> <li>○ Foundation Foods</li> </ul> </li> </ul>
<b>Estimated number of individuals consulted</b>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Summary of Feedback, Objection or Claim</b>	
Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.	
<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>There were no feedback, objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	





**COMMUNITY CONSULTATION**

# COMMUNITY INFORMATION SESSIONS IN IERAMUGADU


You're invited to meet, greet and eat with our friendly team in Ieramugadu. We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Stop by to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed projects, including Scarborough and Browse.

---

Visit 39 Roe Street, Roebourne, between **12pm** and **3.30pm**, on:

<b>Thursday</b> 22 June 2023	<b>Wednesday</b> 19 July 2023
---------------------------------	----------------------------------



### 3.41.3 Karratha Community Information Sessions (28 and 29 June 2023)

<b>Location</b>	Karratha – Shopping Centre, Woodside office
<b>Date</b>	28,29 June 2023
<b>Description of the consultation</b>	<p>Community Information Sessions were held in Karratha. Representatives from Woodside, including project and environment personnel equipped to answer technical questions, attended the event.</p> <p>A number of Environment Plan Consultation Information Sheets and targeted Consultation Summary Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>

<p><b>Advertising and invitations</b></p>	<p>Ahead of the event, Woodside advertised the sessions via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Ahead of the 28 June 2023 event, a story was posted on Woodside’s Facebook page (<b>Record of Consultation, reference 3.41.3.2</b>), sharing details of its shopping centre stand where Consultation Information Sheets regarding planned and proposed activities were available, including the activities proposed under this EP.</li> <li>• Ahead of the 29 June 2023 event, the Community Information Session was advertised in the Pilbara News (<b>Record of Consultation, reference 3.41.3.1</b>), geotargeting a social media campaign in Karratha and surrounding areas and posting the event details on Woodside’s Facebook page (<b>Record of Consultation, reference 3.41.3.3</b>).</li> <li>• Woodside advertised the session by distributing posters advising of the event details in the local community and visiting offices to raise awareness, including the offices of local Traditional Custodian groups.</li> </ul>
<p><b>Estimated number of individuals consulted</b></p>	<ul style="list-style-type: none"> <li>• Estimated number of people consulted: 10-20</li> </ul>
<p><b>Summary of Feedback, Objection or Claim</b></p>	
<p>Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.</p> <ul style="list-style-type: none"> <li>• Employment opportunities provided by the resources sector.</li> <li>• General interest in Woodside EPs.</li> </ul>	
<p><b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b></p>	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	

**3.41.3.1 Newspaper advertisement – Pilbara News (28 June 2023)**



Rio Tinto iron ore chief executive Simon Trott and China Baowu vice-president Hou Angui.

# Rio reaches \$1b Range milestone

CHEYANNE ENCISO

Rio Tinto has spent \$1 billion with WA businesses as it progresses the development of its Western Range joint venture with China Baowu Steel Group.

Simon Trott, iron ore chief executive of Rio Tinto, said the \$1b spend marked a considerable milestone.

"Rio Tinto spends billions of dollars with local suppliers across Western Australia and the Pilbara every year, helping support thriving communities across the State by providing local jobs for local people," he said.

The 25 million tonnes-a-year Western Range project will help sustain production of Rio's flagship Pilbara blend product from its existing Paraburdo mining hub as the

Eastern Range project depletes. China Baowu said it was pleased to see the Western Range project progressing smoothly.

Premier Roger Cook said significant projects such as the Western Range reinforced WA as an attractive and secure destination for business and investment. "I want to commend Rio Tinto and Baowu on this latest project milestone and acknowledge their efforts in investing in WA to ensure WA businesses and workers benefit most," he said.

Rio in March reported it had spent \$8.6b with more than 2400 WA and Indigenous businesses in 2022 as part of its local buying program.

The figure included \$618m with Pilbara-based businesses, \$304m with Indigenous companies across WA, and \$438m with businesses run by traditional owners.



Here at Pilbara Ports Authority, we are committed to advancing an inclusive and productive workplace where people are valued and respected.

We are proud of the talent and diversity of our workforce. Our people are key to our current and future success. We are seeking individuals, who strive for excellence in all they do and seek out opportunities for growth. In return, we provide generous support for training and professional development.

If this sounds like a workplace you would thrive in, take a look at our current vacancies.

• Administration Officer – Maintenance – Port Hedland

Find out more about PPA careers and youth training online via [careers.pilbaraports.com.au](http://careers.pilbaraports.com.au)



FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES

## WOULD YOU LIKE TO KNOW WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?

We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Drop in to our office to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed activities, including Scarborough.

Thursday, 29 June 2023  
Between 9.00am - 2.00pm  
The Quarter HQ Level 3  
24 Sharpe Avenue  
Karratha WA 6714

You can also access our consultation information and provide feedback by scanning the QR code.





### 3.41.3.2 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



Woodside North West

Published by Woodside Comms · 28 June at 10:07 · 🌐



Stop by [Karratha City Shopping Centre](#) today and say our hello to our friendly team 🌞

We'll be here until 12pm to share information about our planned and proposed activities, our contribution in the community and employment pathways.



### 3.41.3.3 Geotargeted Social Media Campaign (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.

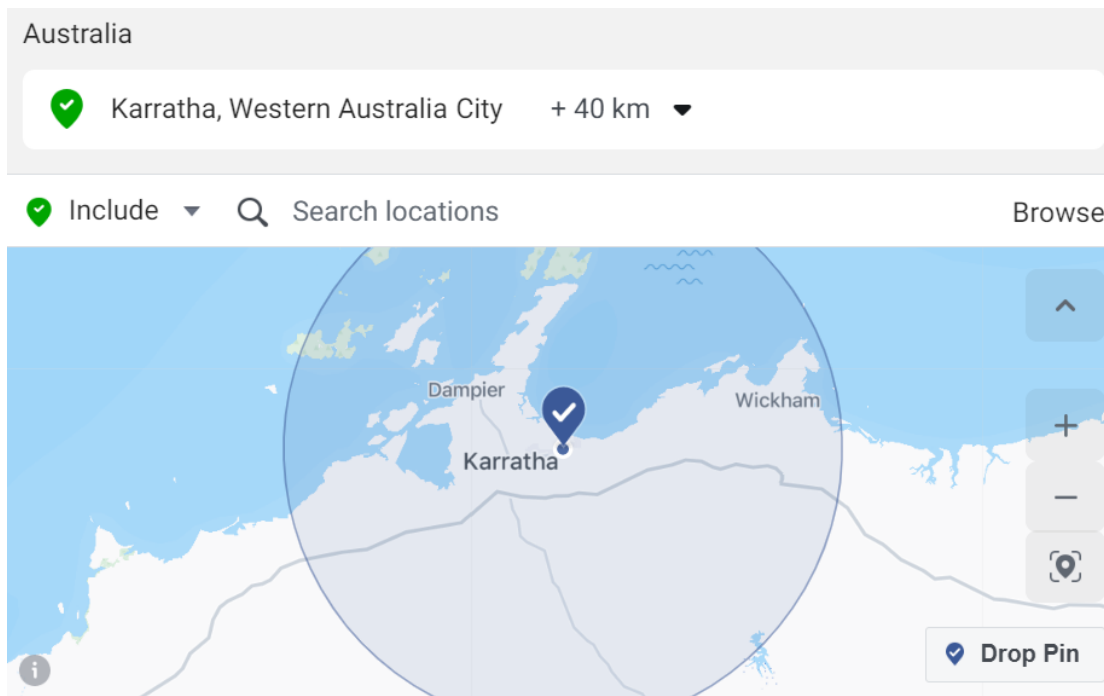
Dates: 26 June 2023 – 29 June 2023

Geotargeting: 40km radius around Karratha

Reach: 19,240 viewers

Impressions: 22,931 views

Campaign name	Ad set name	Delivery	Reach	Impressions	Frequency	Attribution setting	Results
EP Drop in session - KTA	All	Recently completed Campaign	19,240	22,931	1.19	7-day click or 1-day view	19,240 Reach




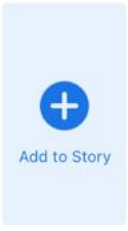
On 28 June 2023, Woodside posted a story on its Woodside North West Facebook account, sharing details of its drop-in session.



Reach: 1,366 viewers

Impressions: 22,931 views

Geotargeting: 40 km radius around Karratha



 Insights
 Viewers

---

**Seen by**

**1.3K**



Unique accounts

---

**Engagement**


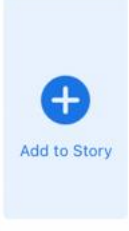
**5**



Actions taken from this story

 Reactions >
 5

**Navigation**


Forward taps	450
Backward taps	19
Forward swipes	309
Exits	458

 Insights
 Viewers

---

**1,334 viewers**





1,334 other people viewed this story. As it was shared to Public, people you're not friends with saw it.

---

**Engagement**

**5**

Actions taken from this story

 Reactions >
 5


Woodside North West 16 h
✕

**Did you miss us today at the Karratha City Shopping Centre?**

Drop in to our Karratha office tomorrow and say hello to our friendly team.

We'd like to talk about our Environment Plans with relevant persons whose functions, activities or interests may be affected by our proposed projects.

Stop by our office to find out more and share your feedback about Woodside's work in the North West, our Environment Plans and our current and proposed activities, including Scarborough.

Thursday, 29 June 2023  
 Between 9.00am - 2.00pm  
 The Quarter HQ Level 3  
 24 Sharpe Avenue  
 Karratha WA 6714





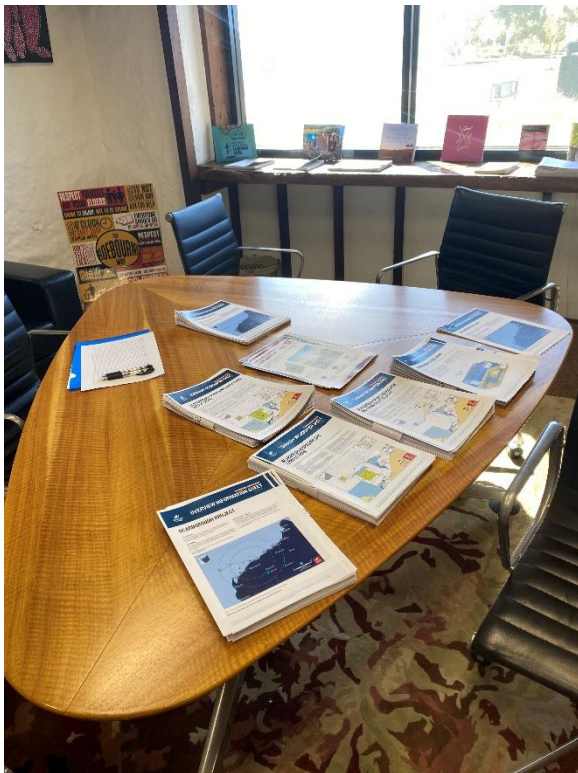
### 3.41.4 Roebourne Community Information Session (19 July 2023)

<b>Location</b>	<b>Roebourne</b>
<b>Date</b>	<b>19 July 2023</b>
<b>Description of the consultation</b>	<p>A Community Information Session was held in Roebourne.</p> <p>The consultation information 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. A number of Environment Plan Consultation Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>
<b>Advertising and invitations</b>	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Woodside advertised the session by distributing posters advising of the event details in the local community and visiting offices to raise awareness, including the offices of local Traditional Custodian groups.</li> <li>• From 15–17 June 2023, Woodside commenced a geotargeted social media campaign in Roebourne and surrounding areas (<b>Record of Consultation, reference 3.41.4</b>) advertising the Community Information Session.</li> <li>• Woodside distributed posters advertising the community information session locally, including: <ul style="list-style-type: none"> <li>○ Front door and front window of Woodside Roebourne office, with the open sign and fact sheets on display inside</li> <li>○ On the noticeboard at Roebourne Community Resource Centre (inside the Ieramugadu Store (NYFL’s Foundation Foods).</li> <li>○ Roebourne CRC</li> <li>○ Pilbara Community Legal Service</li> <li>○ NBAC</li> <li>○ WAPOL</li> <li>○ BP</li> </ul> </li> <li>• Woodside staff also visited the following offices to advise of the community information session and provide posters: <ul style="list-style-type: none"> <li>• Ngarluma and Yindjibarndi Foundation Ltd (NYFL)</li> <li>• Yinjaai-Barni Art Group</li> <li>• Yandi for Change</li> <li>• NYFL</li> <li>• WY Program</li> <li>• Roebourne Library</li> <li>• Yindjibarndi Ranger office</li> <li>• Ashburton Aboriginal Corporation</li> <li>• A poster was also put up at Cossack.</li> </ul> </li> </ul>
<b>Estimated number of individuals consulted</b>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Summary of Feedback, Objection or Claim</b>	
Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions and provide their feedback.	
<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>There were no feedback, objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests</p>	



or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see **Section 5.2 of the EP**).

### Posters at Woodside's Roebourne Office:



### 3.41.5 Karratha FeNaCING Festival – 5 and 6 August 2023

<b>Location</b>	<b>Karratha – FeNaCING Festival</b>
<b>Date</b>	<b>5, 6 August 2023</b>
<b>Description of the consultation</b>	<p>Woodside had a stand at the annual FeNaCING Festival held in Karratha. Members of Woodside's Corporate Affairs and Operations teams actively engaged with the community to discuss proposed Environment Plan activities.</p> <p>The stand included Consultation Information Sheets for a number of Environment Plans including GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP.</p>
<b>Advertising and invitations</b>	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Advertisement in the Pilbara News on 2 August 2023 (<b>Record of Consultation, reference 3.41.5</b>).</li> <li>• A social media story appeared on the Woodside Nort West Facebook page on 2 August 2023 (<b>Record of Consultation, reference 3.41.5</b>).</li> <li>• Directly inviting local Traditional Custodian groups (<b>Record of Consultation, Table 1</b>).</li> </ul>
<b>Estimated number of individuals consulted</b>	Woodside estimates that over 2,000 people visited the Woodside stand based on the number of completed consultation forms and questionnaires.
<b>Summary of Feedback, Objection or Claim</b>	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> <li>• Update of Woodside activities and employment and contracting opportunities</li> <li>• All 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. An iPad was available for stakeholders to do this on the spot.</li> </ul>	
<b>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside's broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	

#### Pilbara News Advertisement – 2 August 2023





**PROVIDE YOUR FEEDBACK AT FeNaCING FESTIVAL**

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at FeNaCING Festival and find out more about our Environment Plans and projects, including Scarborough and Browse.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.

Follow us @woodsidenorthwest  
www.woodside.com



6 NEWS Pillbara NEWS  
Wednesday, August 2, 2023

## Melski's murals brought to life

**DANIEL SPENCE**

Fleming Primary School has successfully brought renowned artist Mel Melski, popularly known as Melski, and her sister Tash to create three vibrant murals around the school premises.

With funding support from corporate entities like Woodside, PNC, and Pillbara Road Estate, as well as community contributions from Seaview, Marina, Sutton, Yara, and QUBE Energy, the school raised more than \$20,000 to bring this art project to life.

Home to nearly 200 students, with a third of them having Indigenous backgrounds, school Deputy Principal Toni Whitbread and visual arts specialist Felicity Collins said the mission of the project was to celebrate diversity and create a sense of belonging by reflecting students' culture through artwork.

The school's mission was to celebrate diversity and create a profound sense of belonging by reflecting the students' culture through artwork.

What particularly attracted the school to Melski's work was its unique paint-by-numbers style, which allowed students to actively participate in the mural creation process.

Eager to engage the entire school community, the school declared a special "paint week," during which more than 600 students enthusiastically joined hands to contribute to the murals.

Throughout the week, students not only participated in the creation of the murals but also enjoyed immersive art sessions in the park, indulging in painting, drawing, collaging, and chalk drawings under the enchanting winter weather.

The entire experience served to nurture the students' creativity and appreciation for art, leaving a lasting impact on their artistic aspirations.

Ms Collins said she was thrilled to see the whole school coming together for a week of collaborative art.

"We were delighted to see students immersed in a week of collaborative art," she said.

"Students not only contributed to the creation of the mural but also with their involvement in the immersive art in the park session — which included painting, drawing collaging and chalk drawings — while all outside soaking up the winter weather."



The artist was brought to the school to create murals.



Beyond supplying affordable, reliable, ever-cleaner energy — we believe we have an important role to play in helping local communities build a vibrant and prosperous future.

We do this by investing in programs which contribute to areas of health and wellbeing, education, environment and building thriving communities.

**We're calling for applications** for the Chevron Community Spirit Fund, offering donations of up to \$15,000 to not-for-profit organisations operating in the following Northwest locations:

- Carnarvon
- Coral Bay
- Dampier
- Denham
- Exmouth
- Karratha
- Onslow
- Port Hedland
- Roebourne
- Shark Bay

Applications are open now until 13 August 2023. To apply, head to [australia.chevron.com](http://australia.chevron.com)




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Story on the Woodside North West Facebook Page – 2 August 2023



**Environment Plan Banner**



**3.41.6 Passion of the Pilbara, Onslow (18 August 2023)**

<b>Location</b>	<b>Onslow – Passion of the Pilbara festival</b>
<b>Date</b>	<b>18 August 2023</b>
<b>Description of the consultation</b>	Members of Woodside’s Corporate Affairs engaged with the community to discuss proposed Environment Plan activities.

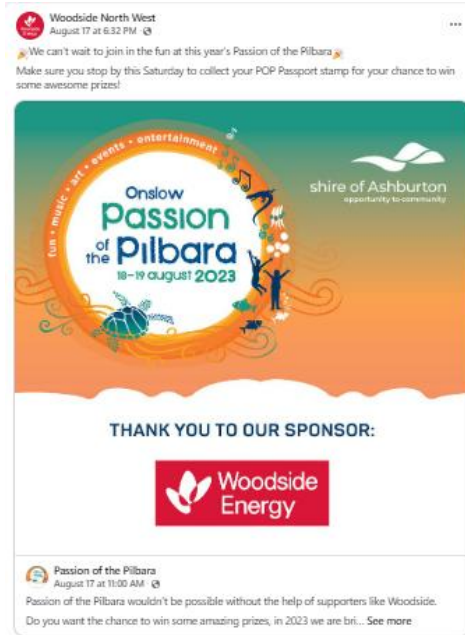
	The stand included Consultation Information Sheets for a number of Environment Plans including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP.
<b>Advertising and invitations</b>	<p>Ahead of the event, Woodside advertised the session via the means below to assist individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>The consultation opportunity was promoted prior to the Festival in a story on the Woodside North West Facebook page on 17 August 2023 (<b>Record of Consultation, reference 3.41.6</b>).</li> </ul>
<b>Estimated number of individuals consulted</b>	<ul style="list-style-type: none"> <li>Woodside estimates approximately 100 people visited the Woodside stand.</li> </ul>
<b>Summary of Feedback, Objection or Claim</b>	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> <li>Update of Woodside activities and employment opportunities</li> <li>General Scarborough project update and operations. A Scarborough operations map and Floating Production Unit images were available (see below). There was general community interest and support for the project. Discussions included: <ul style="list-style-type: none"> <li>Support for the project and dissatisfaction about protester activity against the project.</li> <li>Number of jobs during construction.</li> <li>Location of activities (noting activity was not off the coast of Onslow).</li> </ul> </li> <li>General interest on the Browse project included: <ul style="list-style-type: none"> <li>Awareness that Carbon Capture Storage concept is feasible and has been included in the development concept.</li> </ul> </li> <li>One individual asked in relation to the Scarborough Project what Woodside was doing in relation to the protecting environment.</li> <li>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.</li> </ul>	
<b>Woodside Energy’s Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>Whilst feedback was received, there were no objections or claims.</p> <p>The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	

## 17 August 2023 – Passion of the Pilbara Facebook Post





## 17 August 2023 – Woodside North West Facebook Page




## Woodside Facebook Post and Story – 17 August 2023

### Feeds

Facebook Feeds

Woodside North West added a new photo. X ⋮

Sponsored




**PROVIDE YOUR FEEDBACK AT PASSION OF THE PILBARA**

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at Passion of the Pilbara in Onslow this Saturday and find out more about our Environment Plans and projects, including Scarborough and Browse.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.




Like Comment Share

### Stories and Reels

Facebook Stories

Woodside North West Sponsored




**PROVIDE YOUR FEEDBACK AT PASSION OF THE PILBARA**

Are you interested in what Woodside has planned on land and sea?

Join our friendly team at Passion of the Pilbara in Onslow this Saturday and find out more about our Environment Plans and projects, including Scarborough and Browse.

We look forward to sharing information about our current and proposed activities and providing the opportunity to discuss your relevant functions, activities or interests and receive your input.




#### Audience definition

Your audience is defined.

Specific Broad

---

Estimated audience size: 21,400 - 25,200

 Estimates may vary significantly over time based on your targeting selections and available data.

---

#### Estimated daily results

Reach

**15K-21K**

The accuracy of estimates is based on factors such as past campaign data, the budget you entered, market data, targeting criteria and ad placements. Numbers are provided to give you an idea of performance for your budget, but are only estimates and don't guarantee results.

## Woodside Marquee



## Woodside Information Sheets





### 3.42 Pilbara Community Information Sessions (September 2023)

<b>Location</b>	<b>Karratha, Port Hedland, and Roebourne</b>
<b>Date</b>	18 – 20 September 2023
<b>Description of the consultation</b>	<p>Woodside hosted community consultation sessions in Karratha, Port Hedland and Roebourne to enable community members to understand Woodside’s proposed activities and how it may affect them, ask questions, and provide their feedback. Woodside Project, Corporate Affairs, First Nations and Environment representatives were available to answer questions.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>
<b>Advertising and invitations</b>	<p>Woodside advertised the sessions to enable individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Advertisement in the Pilbara News on 13 September 2023 (<b>Record of Consultation, reference 3.42.1</b>).</li> <li>• Geotargeted social media campaign advertising in Karratha (Reach 22,095), Port Hedland (reach 26,487), and Roebourne (reach 22,134) (+80 kms) from 6 to 16 September 2023 (<b>Record of Consultation, reference 3.42.2</b>).</li> <li>• An EP consultation banner with QR code (linked to the Consultation Activities page on the Woodside website), Scarborough Project banner, and Browse Project banners were displayed stand along with current EP factsheets.</li> </ul>
<b>Estimated number of individuals /</b>	<p>18 September 2023 – Karratha. Estimated number of people consulted: 20                      19 September 2023 – Port Hedland. Estimated number of people consulted: 20                      20 September 2023 – Roebourne. Estimated number of people consulted: 0</p>

<b>organisations consulted</b>	
<b>Summary of Feedback, Objection or Claim</b>	
<p>Community discussions centred on:</p> <ul style="list-style-type: none"> <li>• Update of Woodside activities and employment and contracting opportunities.</li> <li>• General Woodside activities on the North West Shelf including the location of operations. Woodside noted the need for additional gas and the role Browse could play at the Karratha Gas Plant.</li> <li>• Some individuals had worked on a Woodside operations / project of knew family and friends that had.</li> <li>• General overview of what an EMBA was.</li> <li>• All 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. An iPad was available for stakeholders to do this on the spot.</li> </ul>	
<b>Woodside Energy's Assessment of Merits of Feedback, Objection or Claim and its Response</b>	
<p>Whilst feedback was received, there were no objections or claims.  The community information sessions were part of Woodside's broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see <b>Section 5.2</b> of the EP).</p>	

### 3.42.1 Pilbara News Advertisement – 13 September 2023



City of Karratha Mayor Peter Long. Picture: Tom Zaurmayr

# Mayor runs again as candidates put forward pitches

## DANIEL SPENCE

Nominations have closed for the 2023 Karratha mayoral and councillor elections, with the list of candidates running to be the city's next mayor being released.

Peter Long — who has been in the position since 2011 — will be running again and said, if re-elected, he would continue to provide Karratha with intelligent, safe and inclusive leadership.

"I am a full-time mayor, always able to receive you and your ideas," he said. "I love the Pilbara and our community."

Regional Development Australia Pilbara chief executive and former local government minister Tony Simpson is also running for mayor.

His vision is to join forces with State and Federal entities to progress childcare, health and housing solutions.

"I would work to draw major brand investments in retail and leisure to provide more options for residents. Identify land for a

foreshore entertainment hub and infuse Karratha with festivals and quality entertainment," he said.

Brenton Johannsen — who ran for the seat of Durack at the recent Federal election under One Nation — said he would donate the entire mayoral allowance to charity.

"I will be a committed full-time mayor, my goal is to visit all businesses and resident groups on a regular basis to touch base and discuss any new issues," he said.

Mr Johannsen said his aims would be neighbourhood safety, more opportunities for locals, ratepayer discounts for local facilities, moving airport smokers' areas, and eco-friendly weed management.

As a sitting councillor, radio announcer, parent and former local business owner mayoral candidate Pablo Miller said he had got to know the people of Karratha.

"As your mayor, I will continue to not only listen but be a strong advocate for our community," he

said. Mr Johannsen said he was interested in expanding opportunities for young people and families, growing local and cultural tourism, supporting businesses and bolstering mental health services.

The owner of the North West Brewing Co Daniel Scott has a vision as mayor to grow Karratha's economy.

His plan is to create an education and sporting precinct between the TAFE and St Luke's College, with accommodation for secondary and tertiary students.

His plans also include a new home for the Pilbara Universities Centre, and a sporting hub for rugby, soccer, hockey and gymnastics.

Those running for council include Daniel Scott, Kieran Dart, Wayne Mothershaw, Mr Johannsen, Sarah Roots, George Levisianos, Bradley Davey, Mr Simpson, James Corea, Joseph Almonte and Geoff Harris.

Elections will be held for the four vacancies on October 21st.

**FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES**

### ARE YOU INTERESTED IN WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?

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.

Speak to our friendly team members at one of our four sessions in September.

<p><b>Monday, 18 September 2023</b> Between 8.00am - 12.00pm <b>Karratha Shopping Centre</b> Sharpe Avenue Karratha</p>	<p><b>Monday, 18 September 2023</b> Between 3.00pm - 6.00pm <b>Red Earth Arts Precinct</b> 27 Welcome Road Karratha</p>
<p><b>Tuesday, 19 September 2023</b> Between 10.00am - 5.00pm <b>South Hedland Square</b> 9-31 Throssell Road South Hedland</p>	<p><b>Wednesday, 20 September 2023</b> Between 10.00am - 4.00pm <b>Woodside Office</b> 39 Roe Street Roebourne</p>

You can access our consultation information, provide feedback and subscribe for updates by scanning the QR code.

ONSLOW

# Business Excellence Awards

## Cocktail Celebration

Saturday 16th September, 2023  
at Onslow Beach Resort

A fabulous stand up cocktail event with canapes and drinks from 5:30pm  
Award presentations from 7pm  
Live entertainment  
post award presentations

**Tickets**  
Purchase your tickets online:  
<https://OCCIBusinessAwards2023.eventbrite.com.au>



### 3.42.2 Social Media – 6 - 16 September 2023

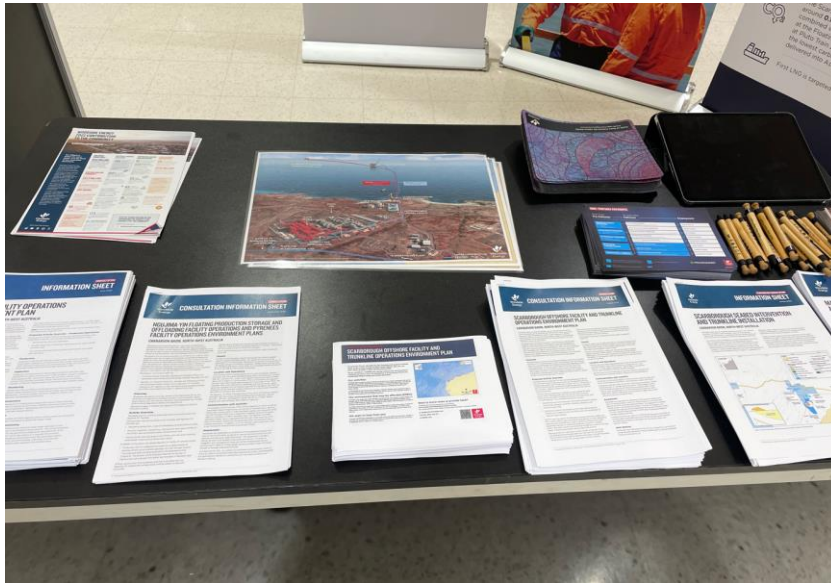
<p><b>Are you interested in what Woodside has planned on land and sea?</b></p> <p>Stop by and say hello to our friendly team in Karratha.</p> <p>We'd like to talk to relevant persons about our Environment Plans. We welcome your input and wish to provide you with the opportunity to share information and discuss your functions, activities or interests which may be affected by our proposed projects.</p> <p><b>Monday, 18 September 2023</b></p> <p>Between 8.00am - 12.00pm Karratha Shopping Centre Sharpe Avenue Karratha</p> <p>Between 3.00pm - 6.00pm Red Earth Arts Precinct 27 Welcome Road Karratha</p> 	<p><b>Are you interested in what Woodside has planned on land and sea?</b></p> <p>Stop by and say hello to our friendly team in Port Hedland.</p> <p>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.</p> <p><b>Tuesday, 19 September 2023</b></p> <p>Between 10.00am - 5.00pm South Hedland Square 9-31 Throssell Road South Hedland</p> 	<p><b>Are you interested in what Woodside has planned on land and sea?</b></p> <p>Stop by and say hello to our friendly team in Roebourne.</p> <p>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.</p> <p><b>Wednesday, 20 September 2023</b></p> <p>Between 10.00am - 4.00pm Woodside Office, Roebourne 39 Roe Street Roebourne</p> 
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Social media reach:

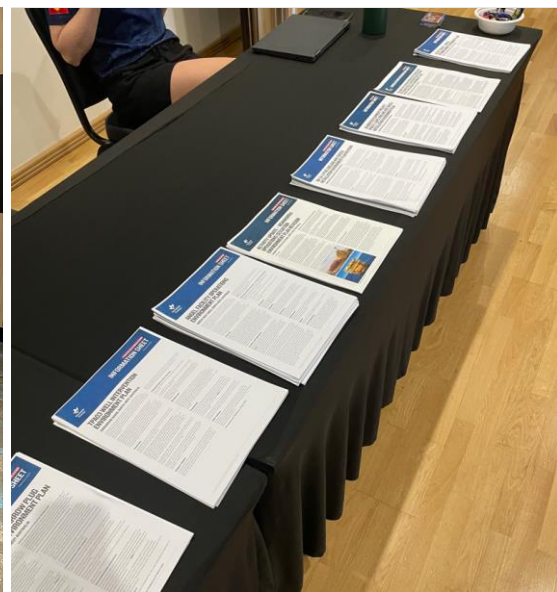
Location	Reach
Karratha	22,095
Port Hedland	26, 487
Roebourne	22,134

### 3.42.3 Karratha Shopping Centre – 18 September 2023

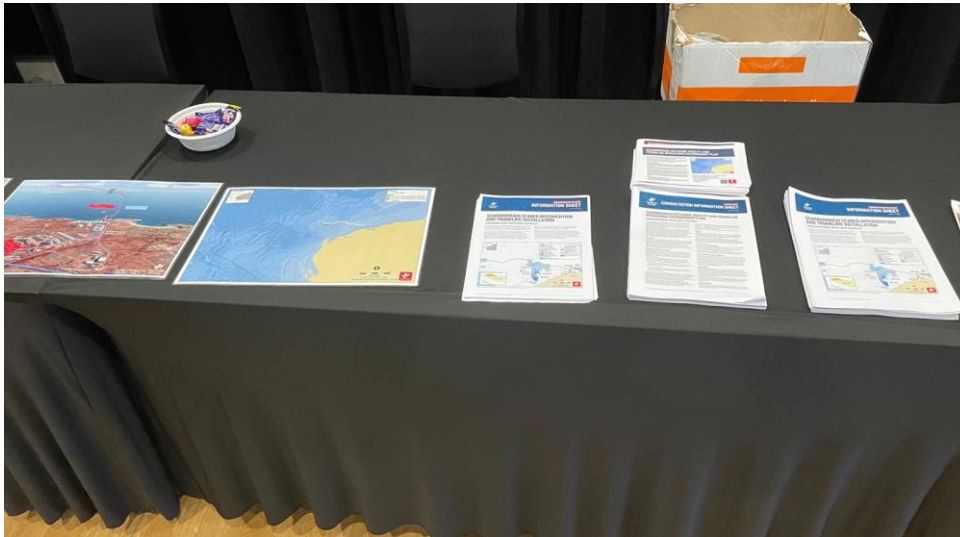




### 3.42.4 Red Earth Arts Precinct – 18 September 2023



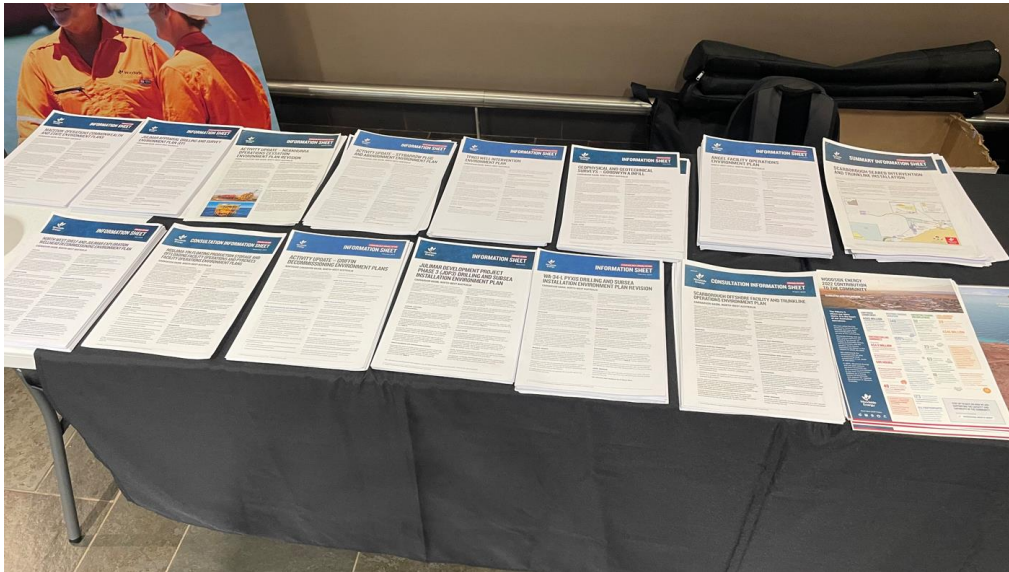




### 3.42.5 South Hedland Square – 19 September 2023







### 3.42.6 Roebourne – Woodside Office – 20 September 2023





### 3.43 Exmouth Community Information Session (October 2023)

<b>Activity</b>	<b>Exmouth Consultation Roadshow</b>
<b>Location</b>	<b>Exmouth</b>
<b>Date</b>	23 October 2023
<b>Description of the consultation</b>	<p>Woodside hosted a community consultation session in Exmouth to enable community members to understand Woodside’s proposed activities and how it may affect them, ask questions, and provide their feedback.</p> <p>Woodside Project, Corporate Affairs, First Nations, Environment, and Biodiversity and Science representatives were available to answer questions.</p> <p>A number of Environment Plan Consultation Information Sheets were available to attendees including the GWA Geophysical and Geotechnical Surveys – Goodwyn A Infill EP Consultation Information Sheet.</p>
<b>Advertising and invitations</b>	<p>Woodside advertised the sessions to enable individuals to self-identify, become aware of the community consultation, and enable individuals to provide feedback on proposed activities, through the following:</p> <ul style="list-style-type: none"> <li>• Advertisement in the Pilbara News on 11 October 2023 (<b>Record of Consultation, reference 3.43.1</b>).</li> <li>• Geotargeted social media campaign advertising in Exmouth and surrounding areas (+80 kms) from 2 to 9 October 2023 (<b>Record of Consultation, reference 3.43.2</b>).</li> <li>• Directly inviting local Traditional Custodian groups (<b>Record of Consultation, Table 1</b>).</li> <li>• An EP consultation banner with QR code (linked to the Consultation Activities page on the Woodside website), and Scarborough Project banner were displayed at Woodside’s stand along with current EP factsheets.</li> </ul>
<b>Estimated number of individuals / organisations consulted</b>	Four individuals attended the information session. One from Gascoyne Green Energy, two Shire Councillors and a representative from Exmouth’s Chamber of Commerce and Industry.
<b>Summary of Feedback, Objection or Claim</b>	
<p>Community members were able to engage with Woodside representatives to understand the proposed activity and how it may affect them, ask questions, and provide their feedback.</p> <ul style="list-style-type: none"> <li>• All stakeholders expressed they had seen the geotargeted ads on social media.</li> <li>• General interest in Woodside activities and interest in the social benefits to the local Exmouth community. This included encouragement for Woodside to promote and share the positive outcomes of Woodside’s presence and an offer from the Chamber to share information amongst its members.</li> </ul>	



- General interest to understand what is involved in a marine seismic survey (MSS). Woodside presented its video on MSS.
- General interest to understand the interaction of whales and MSS, and what mitigation measures are put in place for our activities.
- Interest to understand how Woodside undertakes community consultation

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

Whilst feedback was received, there were no objections or claims. The community information sessions were part of Woodside’s broader consultation approach to enable self-identification, and provide relevant persons with the opportunity to assess any impacts on their functions, interests or activities, and provide feedback on proposed activities, which is consistent with the intended outcome of consultation (see **Section 5.2** of the EP).

**3.43.1 Pilbara News Advertisement – 11 October 2023**

**Pilbara NEWS** Wednesday, October 11, 2023 **NEWS 5**

# Animal flight policy criticised

**CAIN ANDREWS**

A prominent pet adoption agency has slammed Qantas' animal flight policy claiming it will lead to the unnecessary deaths of hundreds of animals.

Over the past year, animal adoption agency Saving Animals From Euthanasia's regional branches in Broome, Newman, Hedland and Karratha collectively rescued 1826 animals with 12.9 per cent or 236 of them requiring air transport to get to their new homes.

But with Qantas now enforcing a "no-fly" policy for animals when temperatures are forecast to reach more than 35C, SAFE founder Sue Hedley said rescue animals that required air transport might have to be destroyed.

"It is crucial to recognise that this policy alteration could have dire consequences for these animals. If they are unable to reach their destination and find new homes, they may tragically face euthanasia as an alternative," she said.

Ms Hedley said SAFE had engaged with Qantas to try to find alternative solutions such as trailers or only allowing animals on early morning flights on days over 35C but was knocked back by the company.

"In over 20 years of operation, SAFE has never had a death during transportation from regional areas to Perth, no matter the temperature," she said.

"Unfortunately, we have been advised that the policy will remain in place and that no exceptions will be made.

"We firmly believe that the risks associated with this policy extend far beyond those related to flying on a day when temperatures may reach 35C later in the day."

A Karratha woman, who only wishes to be identified as Simone, was told her two dogs would not be allowed to catch a Qantas flight on October 5 because of the policy.

According to Simone, at the last minute she was told her dogs could not catch the flight despite being told the night before her dog would be able to fly.

"It's ridiculous we're here with our dogs everything's packed, and we're going away as well.

"With the way things are in Karratha with the shortage of space available there's no one to look after our pets," she said.

"It's not just inconvenient, it's unethical as they're not even adhering to their own policy."

Simone's dogs faced being bumped off a Qantas flight because of the airline's heat policy.

"I get it's about animal safety but what is ridiculous is that the policy clearly states 35C and above and it (was) only 23C."

Qantas eventually made an exception for Simone and her dogs on the day, however, she claims she was told by those at the airport to not tell Ms Hedley about the incident.

Last year, temperatures in Karratha exceeded 35C on 106 days with a consecutive period of 42 days over 35C between February 12 and March 26.

Responding to questions about the policy, a Qantas spokesperson said the policy was led by the International Pet and Animal Association and the International Air Transport Association. "Qantas takes the safety and welfare of pets and animals who travel with us extremely seriously," the spokesperson said.

"This is why we don't transport pets when temperatures exceed 35C or fall below 5C, due to the stress and anxiety this could cause."

**FIND OUT MORE ABOUT OUR PROPOSED ACTIVITIES**

**ARE YOU INTERESTED IN WHAT WOODSIDE HAS PLANNED ON LAND AND SEA?**

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 activities.

Speak to our friendly team members at one of our three sessions in October.

<p><b>Monday, 16 October 2023</b> Between 10.00am - 2.00pm <b>Gwoonwardu Mia</b> 145 Robinson Street Carnarvon</p>	<p><b>Tuesday, 17 October 2023</b> Between 9.00am - 1.00pm <b>Denham Town Hall</b> Hughes Street Denham</p>
<p><b>Monday, 23 October 2023</b> Between 10.00am - 5.00pm <b>Exmouth Chamber of Commerce and Industry</b> 22 Maidstone Crescent Exmouth</p>	

You can access our consultation information, provide feedback and subscribe for updates by scanning the QR code.

**Northwest Multicultural Show 2023**

**SATURDAY**  
**14 OCTOBER 2023**  
**1:00PM-5:00PM**  
**RED EARTH ARTS PRECINCT**

### 3.43.2 Social Media tile and story – 2-9 October 2023

#### **Are you interested in what Woodside has planned on land and sea?**

Stop by and say hello to our friendly team in Exmouth.

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 activities.

#### **Monday, 23 October 2023**

Between 10.00am - 5.00pm

Exmouth Chamber of Commerce and Industry

22 Maidstone Crescent

Exmouth



## Are you interested in what Woodside has planned on land and sea?

Stop by and say hello to our friendly team in Exmouth.

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 activities.

### **Monday, 23 October 2023**

Between 10.00am - 5.00pm

Exmouth Chamber of Commerce and Industry

22 Maidstone Crescent

Exmouth



### **3.44 Karratha Community Liaison Group**

### 3.44.1 Presentation to Karratha Community Liaison Group (29 June 2023)

#### ENVIRONMENT PLAN CONSULTATION

- Changes to Commonwealth Environment Plan (EP) consultation requirements.
- Woodside is now consulting based on the **environment that may be affected (EMBA)** by a proposed petroleum activity rather than within the Operational Area.
- The EMBA is the largest spatial extent where unplanned events, no matter how unlikely, could potentially have an environmental consequence.
- Any person or organisation who does not wish to continue to receive EP consultation materials where they have only been assessed as 'relevant' for unplanned events in the EMBA, under the EP consultation requirements, please advise us in writing and we will not send further information.
- However, you should be aware that this request will need to be recorded in our EP documents and will be publicly available.
- We will be holding a drop-in session after this meeting for anyone in community who would like to know more about any of our EPs.



#### ENVIRONMENT PLAN CONSULTATION Consultation with Karratha CLG



### 3.44.2 Presentation to Karratha Community Liaison Group – 29 September 2023



## LOCAL ENGAGEMENT SESSIONS

- We consult relevant persons in the course of preparing an Environment Plan (EP) to notify them, obtain their input and to assist Woodside to confirm current measures or identify additional measures, if any, that may be taken to lessen or avoid potential adverse effects of the proposed activity on the environment.
- This month we held sessions for local community members to seek information about our EPs, to discuss functions, activities of interest that may be affected by our proposed projects and to provide an opportunity for feedback.
- Locations included the Karratha Shopping Centre, Red Earth Arts Precinct, Woodside's Roebourne Office
- Sessions were advertised to build community awareness and interest.

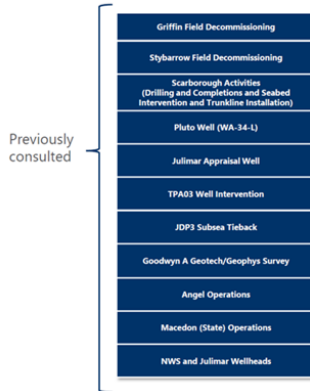


Advertisement - Pilbara News, 13 September 2023

Facebook advertisements



## CONSULTATION



Scan the QR code or visit [woodside.com/consultation-activities](https://www.woodside.com/consultation-activities) to access our consultation information.



## **APPENDIX G PROGRAM OF ONGOING ENGAGEMENT WITH TRADITIONAL OWNERS**

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Controlled Ref No: A1805AH1401799869

Revision: 2

Woodside ID: 1401799869

Page 341 of 343

Uncontrolled when printed. Refer to electronic version for most up to date information.



## **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 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](http://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 be 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:
  - 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:
  - focus on avoidance or minimisation of impacts; and
  - 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.

## 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:

<b>Traditional Custodian Relevant Person</b>	<b>Ongoing Consultation Description</b>	<b>Forward Plan</b>	<b>Estimated Timeframes</b>
Buurabalayji Thalanyji Aboriginal Corporation (BTAC)	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.	Woodside and BTAC have executed a Costs Acceptance Letter. Woodside provided a draft Consultation Agreement to BTAC in February 2024. Woodside will follow up with BTAC to progress the Agreement.	Woodside will follow up with BTAC regarding the draft proposed Consultation Agreement monthly for at least six months or until the Agreement is in place.
Yamatji Marlpa Aboriginal Corporation (YMAC)	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 provided a draft Consultation Agreement to YMAC for NTGAC, who are represented by YMAC, in February 2024. Woodside will follow up with YMAC to progress the Agreement	Woodside will follow up with WAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.
Wirrawandi Aboriginal Corporation (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 provided a draft Consultation Agreement to WAC in March 2024. WAC have previously advised that they do not object to Woodside progressing environmental plans on the proviso that both parties enter into an Agreement suitable to each party. Woodside will follow up with WAC to progress the Agreement.	Woodside will follow up with WAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.
Ngarluma Aboriginal Corporation (NAC)	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 provided a draft Consultation Agreement to NAC in March 2024. Woodside will follow up with NAC to progress the Agreement.	Woodside will follow up with NAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.
Nganhurra Thanardi Garrru Aboriginal Corporation (NTGAC)	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 in-house 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	Woodside has been responding to queries from NTGAC regarding various Environment Plans, who have passed information provided by Woodside onto their Environmental Scientist. Woodside provided a draft Consultation Agreement to NTGAC via YMAC in February 2024. Woodside will follow up with NAC to progress the Agreement.	Woodside will follow up with NTGAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.

	in-house scientist to attend NTGAC meetings to advise NTGAC.		
Yinggarda Aboriginal Corporation (YAC)	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 provided a draft Consultation Agreement to YAC in March 2024. YAC have advised that they will seek direction from the YAC Board on the proposal, and seek agreement from the YAC Board regarding the proposed fee schedule. Woodside will follow up with YAC to progress the Agreement.	Woodside will follow up with YAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.
Robe River Kuruma Aboriginal Corporation (RRKAC)	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)	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 issued a	Woodside provided a draft Consultation Agreement to NYFL in March 2024. NYFL responded with a quote for an initial review of the draft terms of agreement.	Woodside will continue to follow up monthly with NYFL for at least six months, seeking to progress the draft Consultation Agreement.
Kariyarra Aboriginal Corporation (KAC)	In September 2023 KAC proposed an agreement which would include meeting arrangements, ongoing consultations, specialist advice and contact protocols.	Woodside support funding request that are reasonable and will seek to reach agreement on a funding proposal put forward by KAC. Woodside agrees that a Framework Agreement is a sound tool to set out ongoing consultation with KAC, funding arrangements and social investment opportunities that KAC would want explored. Woodside provided a draft Consultation Agreement to KAC in February 2024. Woodside will follow up with KAC to progress the Agreement.	Woodside will follow up with KAC regarding the draft Consultation Agreement monthly for at least six months or until the Agreement is in place.

## **APPENDIX H OIL SPILL PREPAREDNESS AND RESPONSE STRATEGY SELECTION AND EVALUATION**

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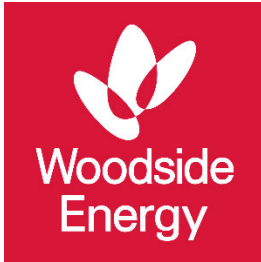
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# Oil Spill Preparedness and Response Mitigation Assessment for Goodwyn Alpha Geophysical and Geotechnical Surveys

Corporate HSE

Hydrocarbon Spill Preparedness

February 2004

Revision 0a

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## EXECUTIVE SUMMARY

Woodside Energy Ltd (Woodside) has developed its oil spill preparedness and response position for the *Goodwyn Alpha Geophysical and Geotechnical Surveys*, hereafter known as the Petroleum Activities Program (PAP).

This document demonstrates that the risks and impacts from an unplanned hydrocarbon release, and the associated response operations, are controlled to As Low as Reasonably Practicable (ALARP) and Acceptable levels. It achieves this by evaluating response options to address the potential environmental impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the Environment Plan (EP). This document then outlines Woodside's decisions and techniques for responding to a hydrocarbon release event and the process for determining its level of hydrocarbon spill preparedness.

A summary of the key facts and references to additional detail within this document are presented below.

**Table 0-1: Summary of the key details for assessment**

Key details of assessment	Summary	Reference to additional detail
<b>Worst Case Credible Scenario</b>	<b>Credible Scenario-01 (CS-01):</b> Vessel collision at the Wilcox prospect. 20° 00' 41.06"S, 115° 30' 50.30"E.  Instantaneous surface release of 182 m <sup>3</sup> of Marine Diesel Oil (MDO).  5% residual component	Section 2.2
	<b>Credible Scenario-02 (CS-02):</b> Vessel collision at the TPA03 wellsite. 19° 45' 43.618" S, 115° 53' 23.986" E. <sup>1</sup>  Instantaneous surface release of 182 m <sup>3</sup> of MDO.  5% residual component	
<b>Hydrocarbon Properties</b>	MDO is a mixture of volatile and persistent hydrocarbons with low proportions of highly volatile and residual components.  Evaporation rates will increase with temperature, but in general about 6% of the oil mass should evaporate within the first 12 hours (BP < 180 °C); a further 35% should evaporate within the first 24 hours (180°C < BP < 265 °C); and a further 54% should evaporate over several days (265 °C < BP < 380 °C). Approximately 5% of the oil is shown to be persistent. The aromatic content of the oil is approximately 3%.  If released in the marine environment and in contact with the atmosphere (i.e., surface spill), approximately 41% by mass of this oil is predicted to evaporate over the first day depending upon the prevailing conditions, with further evaporation slowing over time. The heavier (low volatility) components of the oil tend to entrain into the upper water column due to wind-generated waves but can subsequently resurface if wind-waves abate. Therefore, the heavier components of this oil can remain entrained or on the sea surface for an extended period, with associated potential for dissolution of the soluble aromatic fraction.	Section 8.7.6 of the EP  Appendix A of the First Strike Plan

<sup>1</sup> Existing modelling was undertaken in 2023 for a release of 250 m<sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than the largest fuel tank of the vessel proposed for this activity (182 m<sup>3</sup>) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.

<b>Modelling Results</b>	<b>Stochastic modelling</b> A quantitative, stochastic assessment has been undertaken for credible spill scenarios to help assess the environmental risk of a hydrocarbon spill.  A total of 200 replicate simulations were completed for the scenarios to test for trends and variations in the trajectory and weathering of the spilled oil, with an even number of replicates completed using samples of metocean data that commenced within each calendar quarter (50 simulations per quarter).	Section 2.3	
	<b>Deterministic modelling</b> Deterministic modelling was not required as stochastic modelling confirmed no shoreline contact to any sensitive receptors above response planning thresholds.		
	<b>CS-01 (WCCS): Instantaneous hydrocarbon release of 180 m<sup>3</sup> of MDO from Wilcox prospect over 28 days</b>		
	Minimum time to floating hydrocarbon contact with the offshore edge(s) of any shoreline receptor polygon (at a concentration of 10 g/m <sup>2</sup> )		NA – all modelled scenarios confirmed no shoreline contact above 10 g/m <sup>2</sup>
	Minimum time to shoreline contact (above 100 g/m <sup>2</sup> )		NA – all modelled scenarios confirmed no shoreline contact above 100 g/m <sup>2</sup>
	Largest volume ashore at any single Response Priority Area (RPA) (above 100 g/m <sup>2</sup> )		NA – all modelled scenarios confirmed no shoreline contact above 100 g/m <sup>2</sup>
	Largest total shoreline accumulation (above 100 g/m <sup>2</sup> ) all shorelines		NA – all modelled scenarios confirmed no shoreline contact above 100 g/m <sup>2</sup>
	Minimum time to entrained/dissolved hydrocarbon contact with the offshore edges of any receptor polygon (at a threshold of 100 ppb)		1 hour Montebello Marine Park (MP) (open ocean waters)
<b>Net Environmental Benefit Analysis</b>	Operational monitoring, source control (vessel Shipboard Oil Pollution Emergency Plan (SOPEP)) and oiled wildlife response are identified as potentially having a net environmental benefit (dependent on the actual spill scenario) and carried forward for further assessment.	Section 4	
<b>ALARP evaluation of selected response techniques</b>	The evaluation of the selected response techniques shows the proposed controls reduced the risk to an ALARP and Acceptable level for the risk presented in Section 2, without the implementation of considered additional, alternative or improved control measures.	Section 6	

# 1 INTRODUCTION

## 1.1 Overview

Woodside Energy Ltd (Woodside) has developed its oil spill preparedness and response position for the *Goodwyn Alpha Geophysical and Geotechnical Surveys*, hereafter known as the Petroleum Activities Program (PAP). This document outlines Woodside's decisions and techniques for responding to a hydrocarbon loss of containment event and the process for determining its level of hydrocarbon spill preparedness.

## 1.2 Purpose

This document, together with the documents listed below, meet the requirements of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cth) (Environment Regulations) relating to hydrocarbon spill response arrangements.

- The *Goodwyn Alpha Geophysical and Geotechnical Surveys Environment Plan* (EP)
- Oil Pollution Emergency Arrangements (OPEA) (Australia)
- The *Goodwyn Alpha Geophysical and Geotechnical Surveys Oil Pollution Emergency Plan* (OPEP) including
  - First Strike Plan (FSP)
  - Relevant Operations Plans
  - Relevant Tactical Response Plans (TRPs)
  - Relevant Supporting Plans
  - Data Directory.

The purpose of this document is to demonstrate that the risks and impacts from an unplanned hydrocarbon release and the associated response operations are controlled to As Low as Reasonably Practicable (ALARP) and Acceptable levels.

## 1.3 Scope

This document demonstrates that the risks and impacts from an unplanned hydrocarbon release, and the associated response operations, are controlled to ALARP and Acceptable levels. It achieves this by evaluating response options to address the potential environmental risks and impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the EP. This document then outlines Woodside's decisions and techniques for responding to a hydrocarbon release event and the process for determining its level of hydrocarbon spill preparedness. It should be read in conjunction with the documents listed in Table 1-1. The location of the PAP is shown in Figure 5-1 of the EP.

## 1.4 Oil spill response document overview

The documents outlined in Table 1-1 and Figure 1-1 are collectively used to manage the preparedness and response for a hydrocarbon release.

The Oil Pollution First Strike Plan (FSP) contains a pre-operational Net Environmental Benefit Analysis (NEBA) summary, outlining the selected response techniques for this PAP. Relevant Operational Plans to be initiated for associated response techniques are identified in the FSP and relevant forms to initiate a response are appended to the FSP.

The process to develop an Incident Action Plan (IAP) begins once the Oil Pollution FSP is underway. The IAP includes inputs from the Operational Monitoring operations and the operational NEBA

(Section 4). Planning, coordination and resource management are initiated by the Incident Management Team (IMT). In some instances, technical specialists may be utilised to provide expert advice. The planning may also involve liaison officers from supporting government agencies.

During each operational period, field reports are continually reviewed to evaluate the effectiveness of response operations. In addition, the operational NEBA is continually reviewed and updated so the response techniques implemented continue to result in a net environmental benefit (Section 4).

The response will continue as described in Section 5 until the response termination criteria have been met.

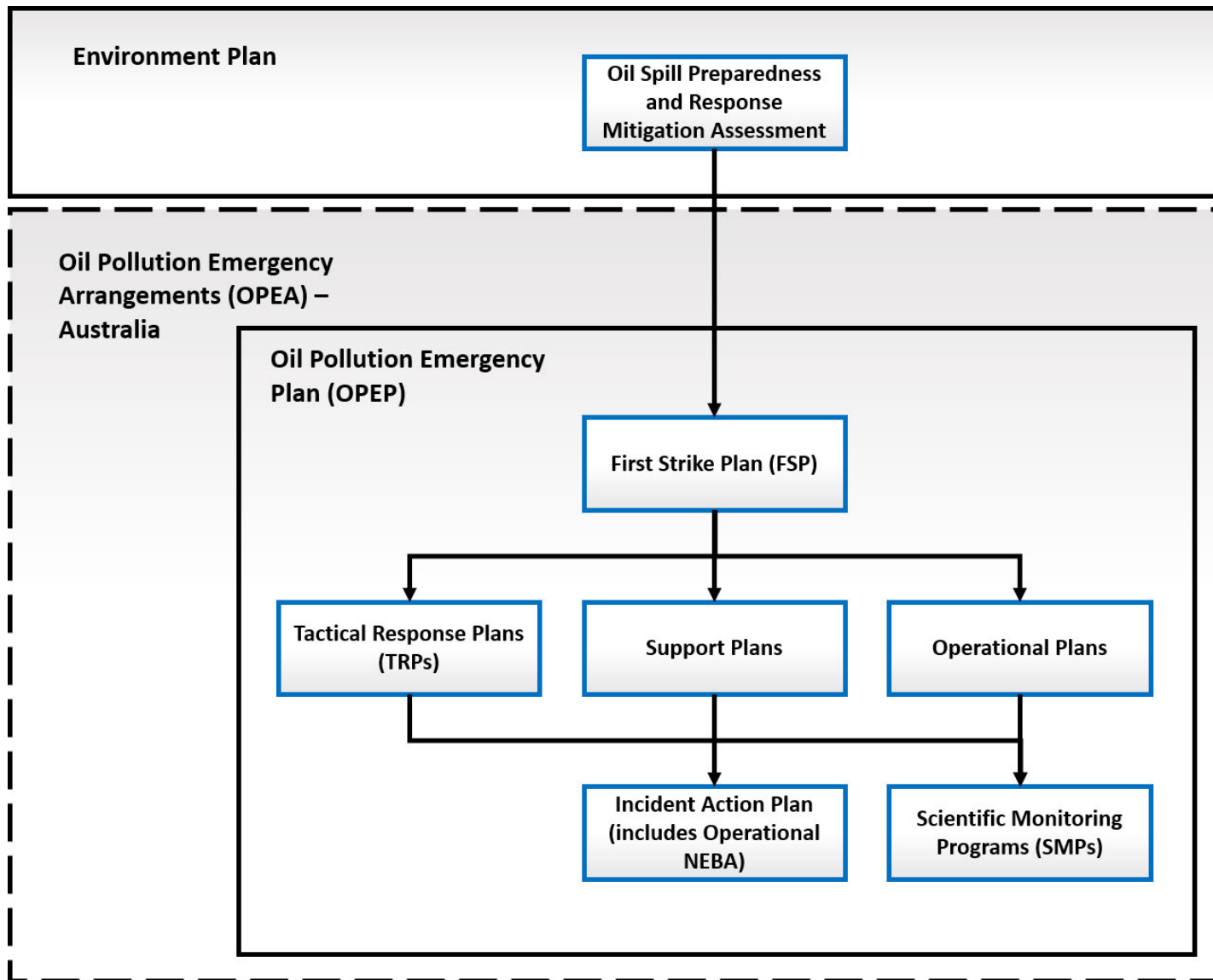


Figure 1-1: Woodside hydrocarbon spill document structure

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Table 1-1: Hydrocarbon spill preparedness and response – document references

Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
<b>Goodwyn Alpha Geophysical and Geotechnical Surveys Environment Plan (EP)</b>	Demonstrates that potential adverse impacts on the environment associated with the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys</i> (during both routine and non-routine operations) are mitigated and managed to As Low As Reasonably Practicable (ALARP) and will be of an acceptable level.	National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) Woodside internal	EP Section 8 (Identification and evaluation of environmental risks and impacts, including credible spill scenarios and the associated performance outcomes, standards and measurement criteria. EP Section 9 (Implementation strategy – including emergency preparedness and response, and Reporting and compliance).	N/A
<b>Oil Pollution Emergency Arrangements (OPEA) Australia</b>	Describes the arrangements and processes adopted by Woodside when responding to a hydrocarbon spill from a petroleum activity.	Regulatory agencies Woodside internal	All	N/A
<b>Oil Spill Preparedness and Response Mitigation Assessment for Goodwyn Alpha Geophysical and Geotechnical Surveys (this document)</b>	Evaluates response options to address the potential environmental impacts resulting from an unplanned loss of hydrocarbon containment associated with the PAP described in the EP.	Regulatory agencies Corporate Incident Management Team (CIMT): Control function in an ongoing spill response for activity-specific response information.	All Performance outcomes, standards and measurement criteria related to hydrocarbon spill preparedness and response are included in this document.	N/A
<b>Goodwyn Alpha Geophysical and Geotechnical Surveys Oil Pollution First Strike Plan</b>	Facility specific document providing details and tasks required to mobilise a first strike response. Primarily applied to the first 24 hours of a response until a full Incident Action Plan (IAP)	Site-based IMT for initial response, activation and notification. CIMT for initial response, activation and notification. CIMT: Control function in an ongoing spill response	Initial notifications and reporting required within the first 24 hours of a spill event. Relevant spill response options that could be initiated for mobilisation in the event of a spill. Recommended pre-planned tactics.	N/A

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Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
	<p>specific to the event is developed.</p> <p>Oil Pollution First Strike Plans are intended to be the first document used to provide immediate guidance to the responding Incident Management Team (IMT).</p>	<p>for activity-specific response information.</p>	<p>Details and forms for use in immediate response. Activation process for oil spill trajectory modelling, aerial surveillance and oil spill tracking buoy details.</p>	
<b>Operational Plans</b>	<p>Lists the actions required to activate, mobilise and deploy personnel and resources to commence response operations.</p> <p>Includes details on access to equipment and personnel (available immediately) and steps to mobilise additional resources depending on the nature and scale of a release.</p> <p>Relevant operational plans will be initially selected based on the Oil Pollution First Strike Plan; additional operational plans will be activated depending on the nature and scale of the release.</p>	<p>CIMT: Operations and Logistics Sections for first strike activities.</p> <p>CIMT: Planning Section to help inform the IAP on resources available.</p>	<p>Locations from where resources may be mobilised.</p> <p>How resources will be mobilised.</p> <p>Details of where resources may be mobilised to and what facilities are required once the resources arrive.</p> <p>Details on how to implement resources to undertake a response.</p>	<p>Operational Monitoring Plan</p> <p>Oiled Wildlife</p> <p>Scientific Monitoring</p> <p>Vessel Shipboard Oil Pollution Emergency Plan (SOPEP)</p>
<b>Tactical Response Plans</b>	<p>Provides options for response techniques in selected RPAs.</p> <p>Provides site, access and deployment information to support a response at the location.</p>	<p>CIMT: Planning Section to help develop IAPs, and Logistics Section to assist with determining resources required.</p>	<p>Indicative response techniques.</p> <p>Access requirements and/or permissions.</p> <p>Relevant information for undertaking a response at that site.</p>	<p>For full list of relevant Tactical Response Plans for the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys</i> oil spill response, refer to ANNEX E: Tactical Response Plans.</p>

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Document	Document overview	Stakeholders	Relevant information	Document subsections (if applicable)
			Where applicable, may include equipment deployment locations and site layouts.	
<b>Support Plans</b>	Support Plans detail Woodside's approach to resourcing and the provision of services during a hydrocarbon spill response.	CIMT: Operations, Logistics and Planning Sections.	Technique for mobilising and managing additional resources outside of Woodside's immediate preparedness arrangements.	Logistics Support Plan Aviation Support Plan Marine Support Plan Accommodation & Catering Plan – Australia Transport Management Plan – Australia Waste Management Plan – Australia Health and Safety Support Plan Hydrocarbon Spill Responder Health Monitoring Guidelines People and Global Capability (Surge Labour Requirements) Support Plan (Land Based) Security Support Plan Stakeholder Engagement Support Plan Guidance for Hydrocarbon Spill Claims Management Communications Support Plan – Australia

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## 2 RESPONSE PLANNING PROCESS

This document details Woodside's process for identifying potential response options for the hydrocarbon release scenarios, identified in the EP. Figure 2-1 outlines the interaction between Woodside's response, planning/ preparedness and selection process.

This structure has been used because it shows how the planning and preparedness activities inform a response and provides indicative guidance on what activities would be undertaken, in sequential order, if a real event were to occur. The process also evaluates alternative, additional and/or improved control measures specific to the PAP.

The *Goodwyn Alpha Geophysical and Geotechnical Surveys* First Strike Plan then summarises the outcome of the response planning process and provides initial response guidance and a summary of ongoing response activities, if an incident were to occur.

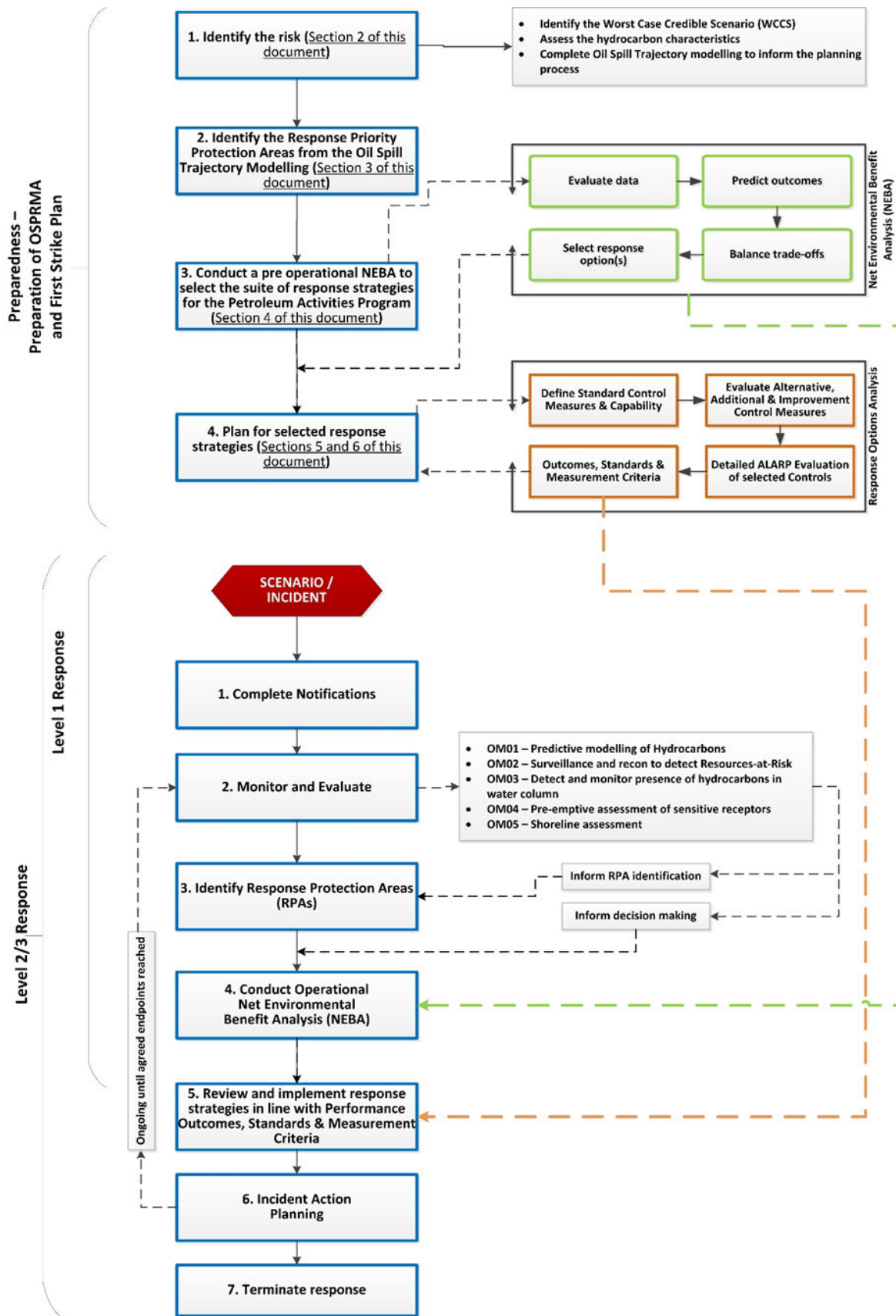


Figure 2-1: Response planning and selection process

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## 2.1 Response planning process outline

This document is expanded below to provide additional context on the key steps in determining capability, evaluating ALARP and hydrocarbon spill response requirements.

- Section 1. INTRODUCTION
- Section 2. RESPONSE PLANNING PROCESS
  - identification of worst-case credible scenario(s) (WCCS).
  - spill modelling for WCCS.
- Section 3. IDENTIFY RESPONSE PROTECTION AREAS (RPAs)
  - areas predicted to be contacted at concentration >100 g/m<sup>2</sup>.
- Section 4. NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)
  - pre-operational NEBA (during planning/ALARP evaluation): this must be reviewed during the initial response to an incident to confirm its accuracy.
  - selected response techniques prioritised and carried forward for ALARP assessment.
- Section 5. HYDROCARBON SPILL ALARP PROCESS
  - determines the response need based on predicted consequence parameters.
  - details the environmental performance of the selected response options based on need.
  - sets the environmental performance outcomes, environmental performance standards and measurement criteria.
- Section 6. ALARP EVALUATION
  - evaluates alternative, additional, and improved options for each response technique to demonstrate the risk has been reduced to ALARP.
  - provides a detailed ALARP assessment of selected control measure options against:
    - predicted cost associated with implementing the option
    - predicted change to environmental benefit
    - predicted effectiveness / feasibility of the control measure.
- Section 7. ENVIRONMENTAL RISK ASSESSMENT OF SELECTED RESPONSE TECHNIQUES
  - evaluation of impacts and risks from implementing selected response options.
- Section 8. ALARP CONCLUSION
- Section 9. ACCEPTABILITY CONCLUSION



## 2.1.1 Response Planning Assumptions

Figure 2-2 illustrates the initial steps of a response to an oil spill event and, where available, the indicative timing. For the latter stages, the timing will be specific to the selective response option.

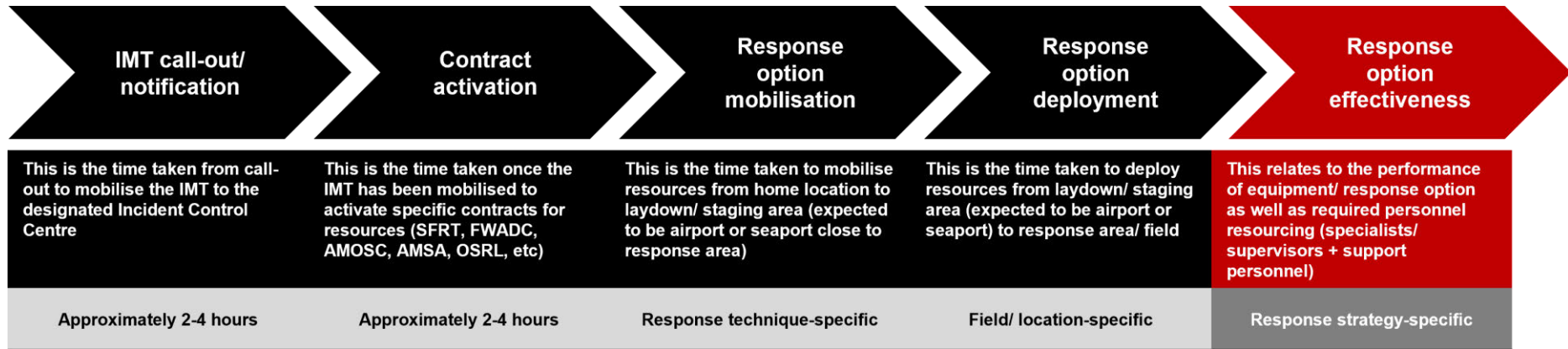


Figure 2-2: Response planning assumption – timing, resourcing and effectiveness

## 2.2 Environment plan risk assessment (credible spill scenarios)

Potential hydrocarbon release scenarios from the PAP have been identified during the risk assessment process (Section 8.7.6 of the EP). Further descriptions of risk, impacts and mitigation measures (which are not related to hydrocarbon preparedness and response) are provided in Section 8 of the EP. Two unplanned events or credible spill scenarios for the PAP have been selected as representative across types, sources and incident/response levels, up to and including the WCCS.

Table 2-1 presents the credible scenarios for the PAP. The WCCS for the activity is then used for response planning purposes, as all other scenarios are of a lesser scale and extent. By demonstrating capability to manage the response to the WCCS, Woodside assumes other scenarios that are smaller in nature and scale can also be managed by the same capability. Response performance measures have been defined based on a response to the WCCS.

Two oil spill modelling scenarios were run at different locations within the operational area (RPS, 2023a and RPS, 2023b). The location of CS-01 was selected as the worst case location for the PAP (i.e. proximity of the Wilcox prospect to the Montebello MP (operational area overlaps part of the MP) and closest point to shore) despite the release volume being smaller than for CS-02. Modelling for both scenarios predicted no shoreline accumulation at response thresholds. The location of CS-01 and CS-02 are shown in Figure 2-3 and Figure 2-4 presents credible scenario/WCCS information for the PAP.



**Table 2-1: Petroleum Activities Program credible spill scenarios**

Credible Spill Scenarios	Scenario selected for planning purposes	Scenario description	Maximum credible volume released (liquid m <sup>3</sup> )	Incident level	Hydrocarbon type	Residual proportion	Residual volume (m <sup>3</sup> )
Credible Spill Scenario-01 (CS-01) (WCCS)	Yes	An instantaneous hydrocarbon release (MDO) caused by vessel collision at the Wilcox prospect location	182 m <sup>3</sup>	2	MDO	5 %	9 m <sup>3</sup>
Credible Spill Scenario-02 (CS-02) <sup>2</sup>	No	An instantaneous hydrocarbon release (MDO) caused by vessel collision at the TPA03 well location	182 m <sup>3</sup>	2	MDO	5 %	9 m <sup>3</sup>

<sup>2</sup> Existing modelling was undertaken in 2023 for a release of 250 m<sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than the largest fuel tank of the vessel proposed for this activity (182 m<sup>3</sup>) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.

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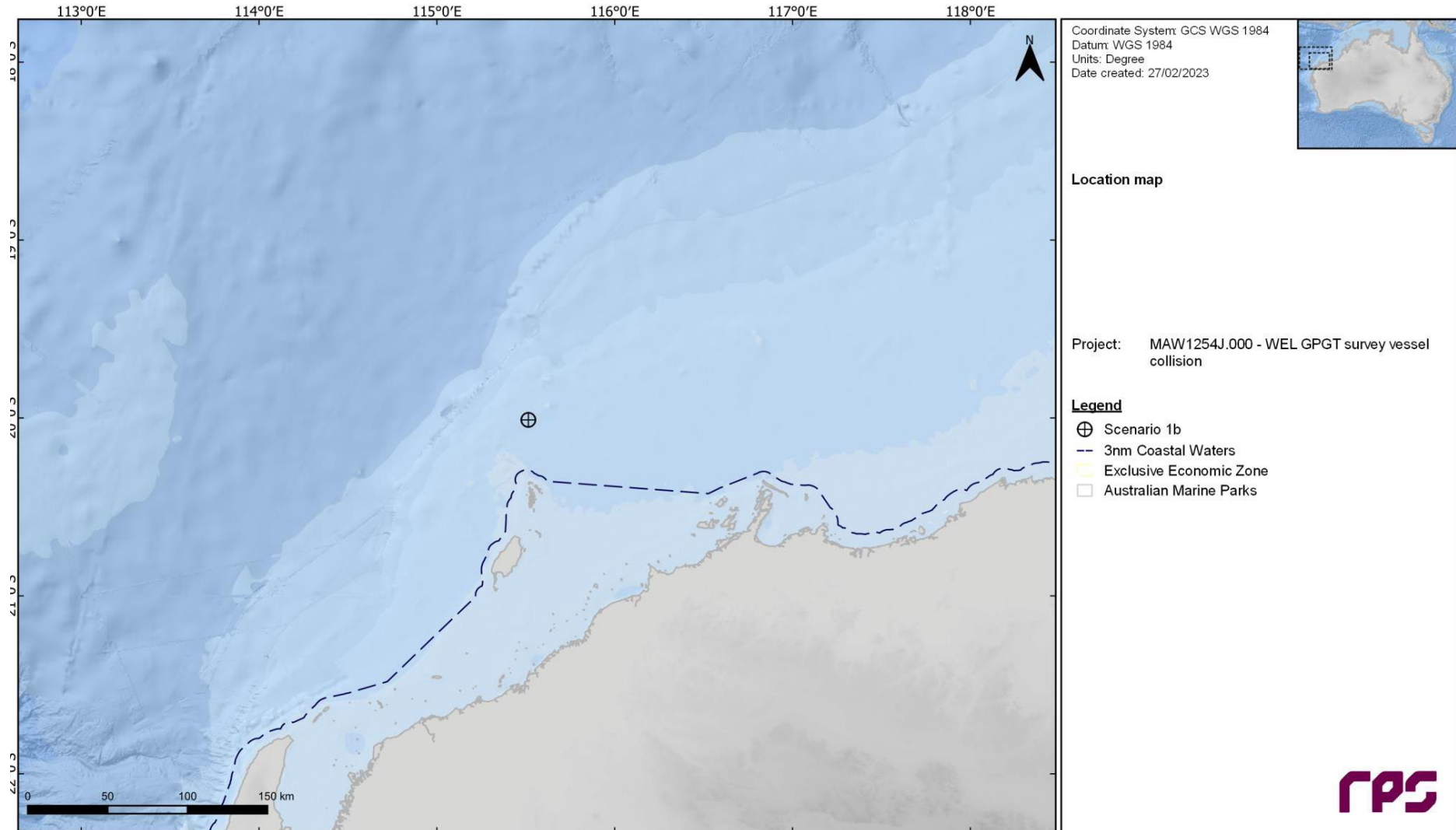


Figure 2-3: Location of CS-01

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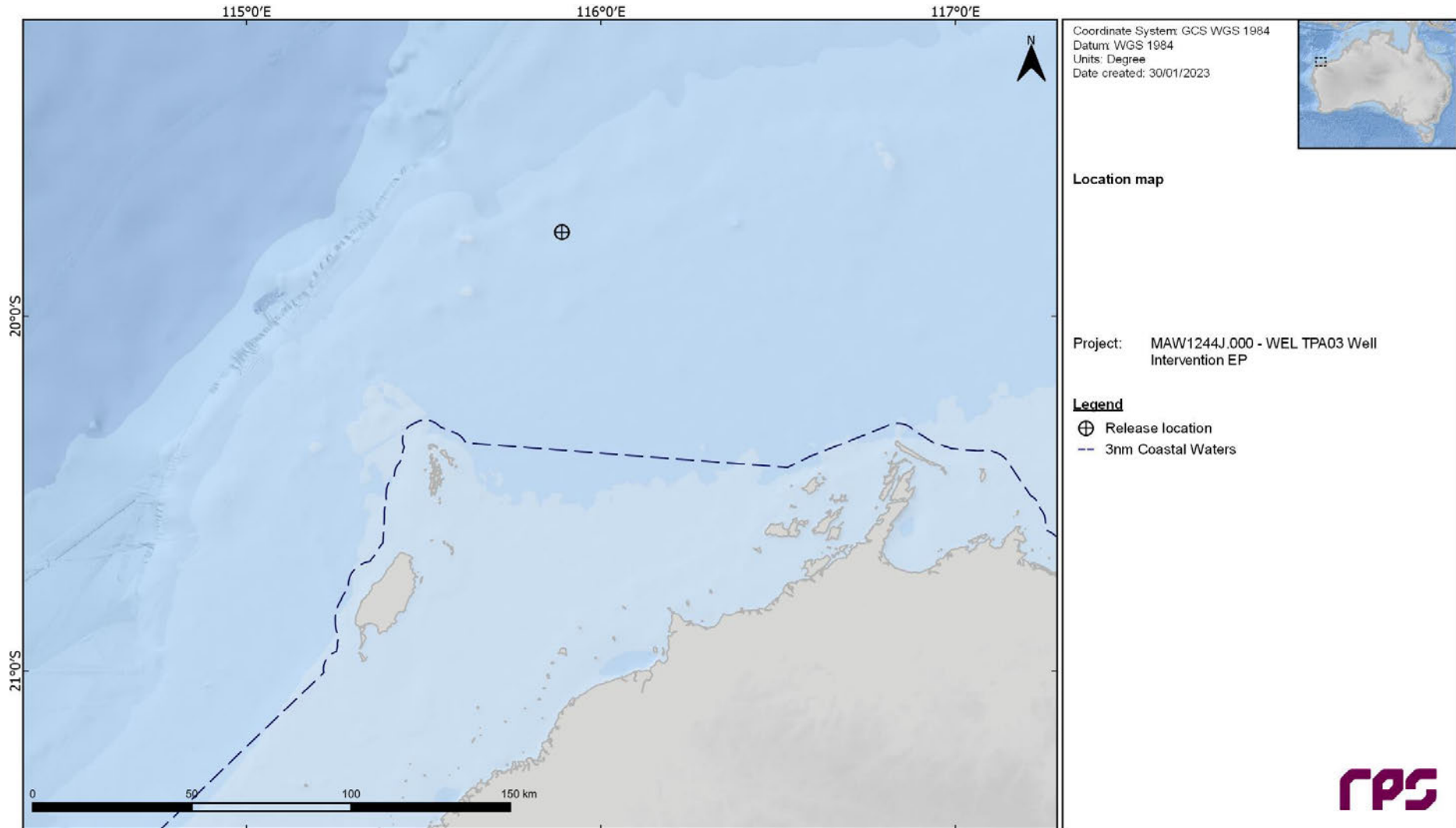


Figure 2-4: Location of CS-02

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## 2.2.1 Hydrocarbon characteristics

Hydrocarbon characteristics, including modelled weathering data and ecotoxicity, are included in Section 8.7.6 of the EP.

### Marine Diesel Oil

Marine diesel oil (MDO) is a mixture of volatile and persistent hydrocarbons with low proportions of highly volatile and residual components. In general, about 6% of the oil mass should evaporate within the first 12 hours (BP < 180 °C); a further 35% should evaporate within the first 24 hours (180 °C < BP < 265 °C); and a further 54% should evaporate over several days (265 °C < BP < 380 °C). Approximately 5% of the oil is shown to be persistent. The aromatic content of the oil is approximately 3%.

If released in the marine environment and in contact with the atmosphere (i.e., surface spill), approximately 41% by mass of this oil is predicted to evaporate over the first couple of days depending upon the prevailing conditions, with further evaporation slowing over time. The heavier (low volatility) components of the oil tend to entrain into the upper water column due to wind-generated waves but can subsequently resurface if wind-waves abate.

## 2.3 Hydrocarbon spill modelling

Oil spill trajectory modelling tools are used for environmental impact assessment and during response planning to understand spatial scale and timeframes for response operations. Woodside recognises that there is a degree of uncertainty related to the use of modelling data and has subsequently utilised conservative approaches to volumes, weathering, spatial areas, timing and response effectiveness to scale capability to need.

The Oil Spill Model and Response System (OILMAP) and Integrated Oil Spill Impact Model System (SIMAP) models are both used for stochastic and deterministic trajectory modelling. They have been developed over three decades of planning, exercises, actual responses, several peer reviews, and validation studies. OILMAP was originally derived from the United States Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Type A model (French et al. 1996), for assessing marine transport, biological impact and economic impact that was also used under the United States Oil Pollution Act 1990 Natural Resource Damage Assessment (NRDA) regulations. Notable spills where the model has been used and validated against actual field observations include, Exxon Valdez (French McCay 2004), North Cape Oil Spill (French McCay 2003), along with an assessment of 20 other spills (French McCay and Rowe, 2004). In addition, test spills designed to verify fate, weathering and movement algorithms have been conducted regularly and in a range of climate conditions (French and Rines 1997; French et al. 1997; Payne et al. 2007a and 2007b; French McCay et al. 2007).

Further to this, the algorithms have been updated using the latest findings from the Macondo Well Deepwater Horizon well blowout in the Gulf of Mexico and validated according to the Deepwater Horizon (DWH) oil spill in support of the Natural Resource Damage Assessment (NRDA) (Spaulding et al. 2015; French McCay et al. 2015, 2016). Finally, the OILMAP and SIMAP models have been used extensively in Australia to prosecute pollution offences, predict discharge locations and likely spill volumes based on weathering and surveillance observations, and has been used as expert witness evidence in Australian court proceedings, aiding the prosecution to determine spill quantum estimates.

### 2.3.1 Environmental impact thresholds – EMBA and hydrocarbon exposure

The outputs of the stochastic spill modelling are used to assess the potential environmental impact from the credible scenario. The stochastic modelling results are used to delineate areas of the marine and shoreline environment that could be exposed to hydrocarbon levels exceeding environmental impact threshold concentrations. The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations modelled is defined as the environment that may be

affected (EMBA) and is discussed further in Section 6 of the EP. As the weathering of different fates of hydrocarbons (surface, entrained and dissolved) differs due to the influence of the metocean mechanism of transportation, a different EMBA is presented for each fate within the EP.

A conservative approach – adopting accepted contact thresholds for impacts on the marine environment – is used to define the EMBA. These hydrocarbon thresholds are presented in Table 2-2.

Deterministic modelling is undertaken where initial stochastic modelling has indicated that floating oil is present at an impact threshold of 50 g/m<sup>2</sup> and/or where there are shoreline accumulations at an impact threshold of 100 g/m<sup>2</sup>. The deterministic modelling outputs are then used to scale the required capability for the offshore (containment and recovery and dispersant) and/or shoreline responses. Deterministic modelling was not undertaken for this PAP as stochastic modelling results indicated no shoreline impacts above thresholds.

**Table 2-2: Summary of thresholds applied to the stochastic hydrocarbon spill modelling to determine the EMBA and environmental impacts**

Threshold (MDO)	Description
10 g/m <sup>2</sup>	Surface hydrocarbon
100 ppb	Entrained hydrocarbon
50 ppb	Dissolved aromatic hydrocarbon
100 g/m <sup>2</sup>	Shoreline accumulation

g/m<sup>2</sup> = grams per square metre  
ppb = parts per billion

### 2.3.2 Response planning thresholds for surface and shoreline hydrocarbon exposure

Thresholds to determine the EMBA are used to predict and assess environmental impacts and inform the SMP; however, they do not appropriately represent the thresholds at which an effective response can be implemented. Additional response thresholds are used for response planning and to determine areas where response techniques would be most effective.

In the event of an actual response, modelling would be reviewed for suitability and additional modelling would be conducted using real-time data and field information to inform Incident Management Team decisions.

The modelling outputs are presented at response planning thresholds for surface hydrocarbons for the WCCS. Surface spill concentrations are expressed as grams per square metre (g/m<sup>2</sup>). The thresholds used are derived from oil spill response planning literature and industry guidance and are summarised in the next subsections.

#### 2.3.2.1 Surface hydrocarbon concentrations

The surface hydrocarbon thresholds for response planning are summarised in Table 2-3. The surface thickness of oil at which dispersants are typically effective is approximately 100 g/m<sup>2</sup>. However, substantial variations occur in the thickness of the oil within the slick, and most fresh crude oils spread within a few hours, so that overall the average thickness is 0.1 mm (or approximately 100 g/m<sup>2</sup>) (ITOPF, 2011). Additionally, the recommended rate of application for surface dispersant is typically one part dispersant to 20 or 25 parts of spilled oil. These figures assume a 0.1 mm slick thickness, averaged over the thickest part of the spill, to calculate a litres/hectare application rate from vessels and aircraft. In practice, this can be difficult to achieve as it is not possible to accurately assess the thickness of the floating oil.



**Table 2-3: Surface hydrocarbon thresholds for response planning**

Surface hydrocarbon concentration (g/m <sup>2</sup> )	Description	Bonn Agreement Oil Appearance Code (BAOAC)	Mass per area (g/m <sup>2</sup> )
>10	Predicted minimum threshold for commencing operational monitoring <sup>3</sup>	Code 3 – Dull metallic colours	5 to 50
50	Predicted minimum floating oil threshold for containment and recovery and surface dispersant application <sup>4</sup>	Code 4 – Discontinuous true oil colour	50 to 200
100	Predicted optimum floating oil threshold for containment and recovery and surface dispersant application	Code 5 – Continuous true oil colour	>200
100	Predicted minimum shoreline accumulation threshold for shoreline assessment operations	Stain	>100
250	Predicted minimum threshold for commencing shoreline clean-up operations	Level 3 – Thin Coating	200 to 1000

Some degree of localised over-dosage and under-dosage is inevitable in dispersant response. An average oil layer thickness of 0.1 mm is often assumed, although the actual thickness can vary over a wide range (from less than 0.0001 mm to more than 1 mm) over short distances (International Petroleum Industry Environment Conservation Association [IPIECA], 2015).

Guidance from Australian Maritime Safety Authority (AMSA) (AMSA, 2020) indicates that spreading of spills of Group II or III products will rapidly decrease slick thickness over the first 24 hours of a spill resulting in the potential requirement of up to a ten-fold increase in capability on day 2 to achieve the same level of performance.

Further guidance from the European Maritime Safety Authority (EMSA) states that spraying the 'metallic' looking area of an oil slick (Bonn Agreement Oil Appearance Code (BAOAC) 3, approximately 5 to 50 µm) with dispersant from spraying gear designed to treat an oil layer 0.1 mm (100 µm) thick, will inevitably cause dispersant over-treatment by a factor of 2 to 20 times (EMSA, 2012).

Therefore, dispersant application should be concentrated on the thickest areas of an oil slick and Woodside intends on applying surface dispersants to only BAOAC 4 and 5. Spraying areas of oil designated as BAOAC Code 4 (Discontinuous true oil colour) with dispersant will, on average, deliver approximately the recommended treatment rate of dispersant.

Spraying areas of oil designated as BAOAC Code 5 with dispersant (Continuous true oil colour and more than 0.2 mm thick) will, on average, deliver approximately half the recommended treatment rate of dispersant. Repeated application of these areas of thicker oil, or increased dosage ratios, will be required to achieve the recommended treatment rate of dispersant (EMSA, 2012).

Stochastic modelling confirmed that 41% of hydrocarbons released to the marine environment in CS-01 would be expected to evaporate within the first 24 hours, with a further 54% evaporating over several days. The remaining 5% would be expected to persist in the marine environment until

<sup>3</sup> Operational monitoring will be undertaken from the outset of a spill as to whether or not this threshold has been reached. Monitoring is needed throughout the response to assess the nature of the spill, track its location and inform the need for any additional monitoring and/or response techniques. It also informs when the spill has entered State Waters and control of the incident passes to Western Australia Department of Transport (WA DoT).

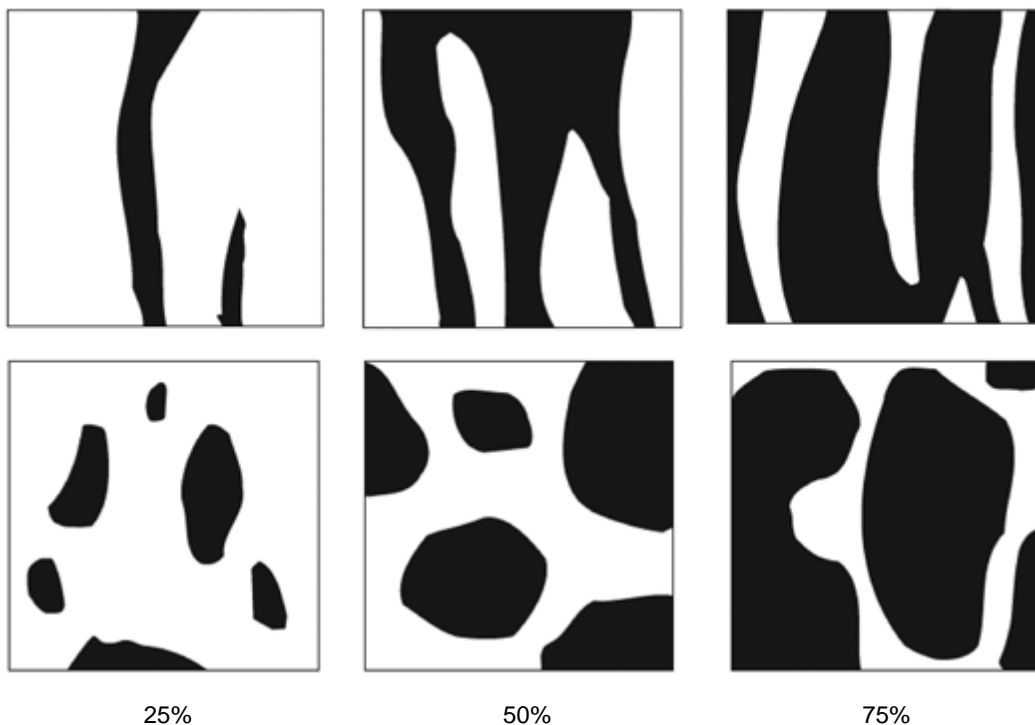
<sup>4</sup> At 50 g/m<sup>2</sup>, containment and recovery and surface dispersant application operations are not expected to be particularly effective. This threshold represents a conservative approach to planning response capability and containing the spread of surface oil.

decayed. The volatile nature of MDO means that the WCCS would not result in hydrocarbon accumulation at a surface thickness at which dispersants would be effective.

Guidance from the National Oceanic and Atmospheric Administration (NOAA) in the United States is found in the document: Characteristics of Response Techniques: A Guide for Spill Response Planning in Marine Environments 2013 (NOAA, 2013). This guide outlines advice for response planning across all common techniques, including surface dispersant spraying and containment and recovery. It states that oil thickness can vary by orders of magnitude within distinct areas of a slick, thus the actual slick thickness and oil distribution of target areas are crucial for determining response method feasibility. Further to this, ITOPF also states that in terms of oil spill response, sheen can be disregarded as it represents a negligible quantity of oil, cannot be recovered or otherwise dealt with to a significant degree by existing response techniques, and is likely to dissipate readily and naturally (ITOPF, 2014a, 2014b).

Figure 2-5 from AMSA’s Identification of Oil on Water – Aerial Observation and Identification Guide (AMSA, 2014) shows expected percent coverage of surface hydrocarbons as a proportion of total surface area. Wind-rows, heavy oil patches and tar balls, for example, must be considered, as they influence oil encounter rates, chemical dosages and ignition potential. Each method has different thickness thresholds for effective response.

From this information and other relevant sources (Allen and Dale, 1996; EMSA, 2012; Spence, 2018) the surface threshold of 50 g/m<sup>2</sup> was chosen as an average/equilibrium thickness (50 g/m<sup>2</sup> as an average is 50% coverage of 0.1 mm Bonn Agreement Code 4 – discontinuous true oil colour, or 25% coverage of 0.2 mm Bonn Agreement Code 5 – continuous true oil colour, which would represent small patches of thick oil or wind-rows).



**Figure 2-5: Proportion of total area coverage (AMSA, 2014)**

Figure 2-6 illustrates the general relationships between on-water response techniques and slick thickness. Wind-rows, heavy oil patches and tar balls, for example, must be considered, as they influence oil encounter rates, chemical dosages and ignition potential. Each method has different thickness thresholds for effective response.

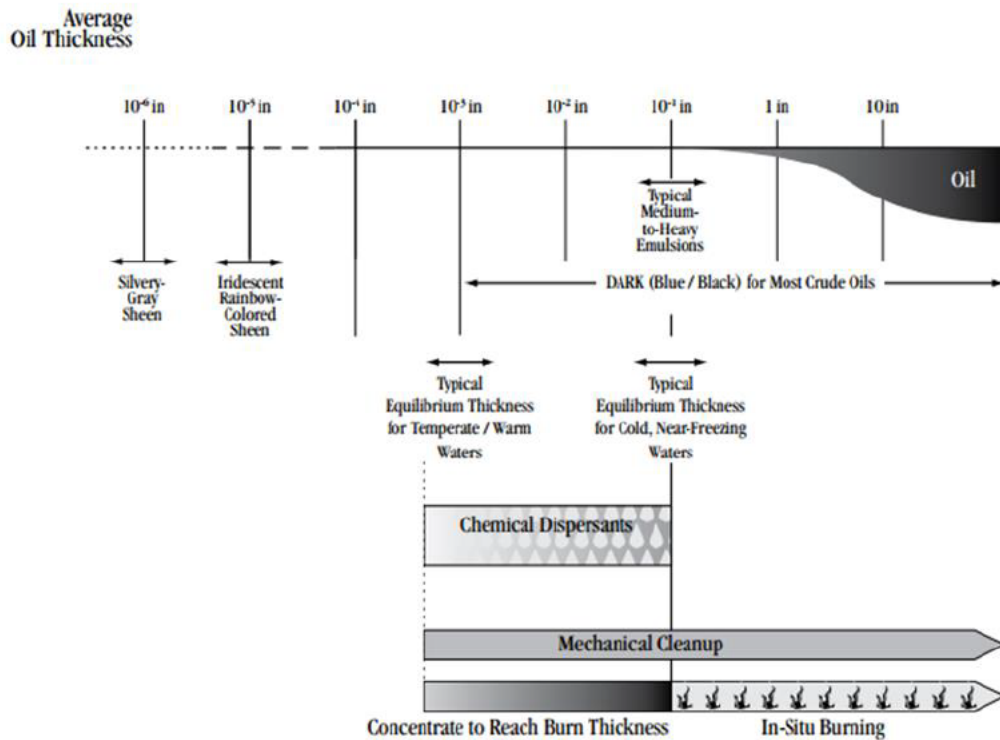


Figure 2-6: Oil thickness versus potential response options (from Allen and Dale, 1996)

Wind and waves influence the feasibility of mechanical clean-up operations, dropping the effectiveness significantly because of entrainment and/or splash-over as short period waves develop beyond two to three feet (0.6 to 0.9 m) in height. Waves and wind can also be limiting factors for the safe operation of vessels and aircraft.

### 2.3.2.2 Surface hydrocarbon viscosity

Table 2-4: Surface hydrocarbon viscosity thresholds

Surface viscosity (cSt)	Description	European Maritime Safety Authority	Viscosity at sea temperature (cSt)
5,000*	Predicted optimum viscosity for surface dispersant operations	Generally possible to disperse	500 to 5000
15,000*	Predicted maximum viscosity for effective surface dispersant operations	Sometimes possible to disperse	5,000 to 15,000

\* Measured at sea surface temperature

Further to the required thickness for surface dispersant application and containment and recovery to be deployed effectively as outlined above, changes to viscosity will also limit the treatment of offshore response techniques. As outlined in the EMSA Manual on the Applicability of Oil Spill Dispersants (EMSA, 2012), guidance around changes to viscosity and likely effectiveness of surface dispersant application is provided.

This includes the following statements: “It has been known for many years that it is more difficult to disperse a high viscosity oil than a low or medium viscosity oil. Laboratory testing had shown that the effectiveness of dispersants is related to oil viscosity, being highest for modern “Concentrate, UK Type 2/3” dispersants at an oil viscosity of about 1000 or 2000 mPa.s (1000 to 2000 cSt) and then declining to a low level with an oil viscosity of 15,000 mPa.s (15,000 cSt). It was considered that some generally applicable viscosity limit, such as 2000 or 5000 mPa.s (2000 to 5000 cSt), could be applied to all oils.”



However, modern oil spill dispersants are generally effective up to an oil viscosity of 5000 mPa.s (5000 cSt) or more, and their performance gradually decreases with increasing viscosity; oils with a viscosity of more than 15,000 are, in most cases, no longer dispersible. Guidance from CEDRE (EMSA, 2012) also indicates that products with a range of 500 to 5000 cSt at sea temperature are generally possible to disperse, while 5000 to 15,000 cSt at sea temperature above pour point are sometimes possible to disperse, with products beyond 15,000 cSt at sea temperature below pour point are generally impossible to disperse.

To support decision making and response planning, a threshold of 15,000 cSt at sea temperature was chosen as a conservative estimate of maximum viscosity for surface dispersant spraying operations.

An MDO spill scenario will not reach the 15,000 cSt threshold for the duration of the spill.

### 2.3.3 Spill modelling results

Details of the scenario and modelling inputs are included along in Table 2-5.

**Table 2-5: Worst case credible scenario modelling results**

Scenario description	Results
	CS-01
WCCS – total volume released Refer to Section 2.2.1 for detailed hydrocarbon characteristics	Hydrocarbon release caused by a vessel collision Surface release of 182 m <sup>3</sup> of MDO
WCCS – residual volume remaining post-weathering	5% residual component which equates to 9 m <sup>3</sup> of MDO
Location	20° 00' 41.06" S; 115° 30' 50.30" E
Minimum time to floating hydrocarbon contact with the offshore edge(s) of any shoreline receptor polygon (at a concentration of 10 g/m <sup>2</sup> )	No contact at any receptor. Floating oil at 10 g/m <sup>2</sup> present in open waters up to 50 km from spill location (including Montebello MP).
Minimum time to commencement of hydrocarbon accumulation at any shoreline receptor (at a concentration of 100 g/m <sup>2</sup> )	NA – stochastic modelling confirmed no shoreline accumulation at any shoreline receptor at or above 100 g/m <sup>2</sup>
Maximum cumulative hydrocarbon volume accumulated at any individual shoreline receptor (at a concentration of 100 g/m <sup>2</sup> ).	NA – stochastic modelling confirmed no shoreline accumulation at any shoreline receptor at or above 100 g/m <sup>2</sup>
Maximum cumulative hydrocarbon volume accumulated across all shoreline receptors contacted by accumulated hydrocarbons (at a concentration of 100 g/m <sup>2</sup> )	NA – stochastic modelling confirmed no shoreline accumulation at any shoreline receptor at or above 100 g/m <sup>2</sup>
Minimum time to entrained/dissolved hydrocarbon contact with the offshore edges of any receptor polygon (at a threshold of 100 ppb)	1 hour – Montebello MP

### 3 IDENTIFY RESPONSE PROTECTION AREAS (RPAs)

In a response, operational monitoring programs – including trajectory modelling and vessel/aerial observations – would be used to predict RPAs that may be impacted. For the purposes of planning and appropriately scaling a response, modelling has been used to identify RPAs as outlined below in Figure 3-1.

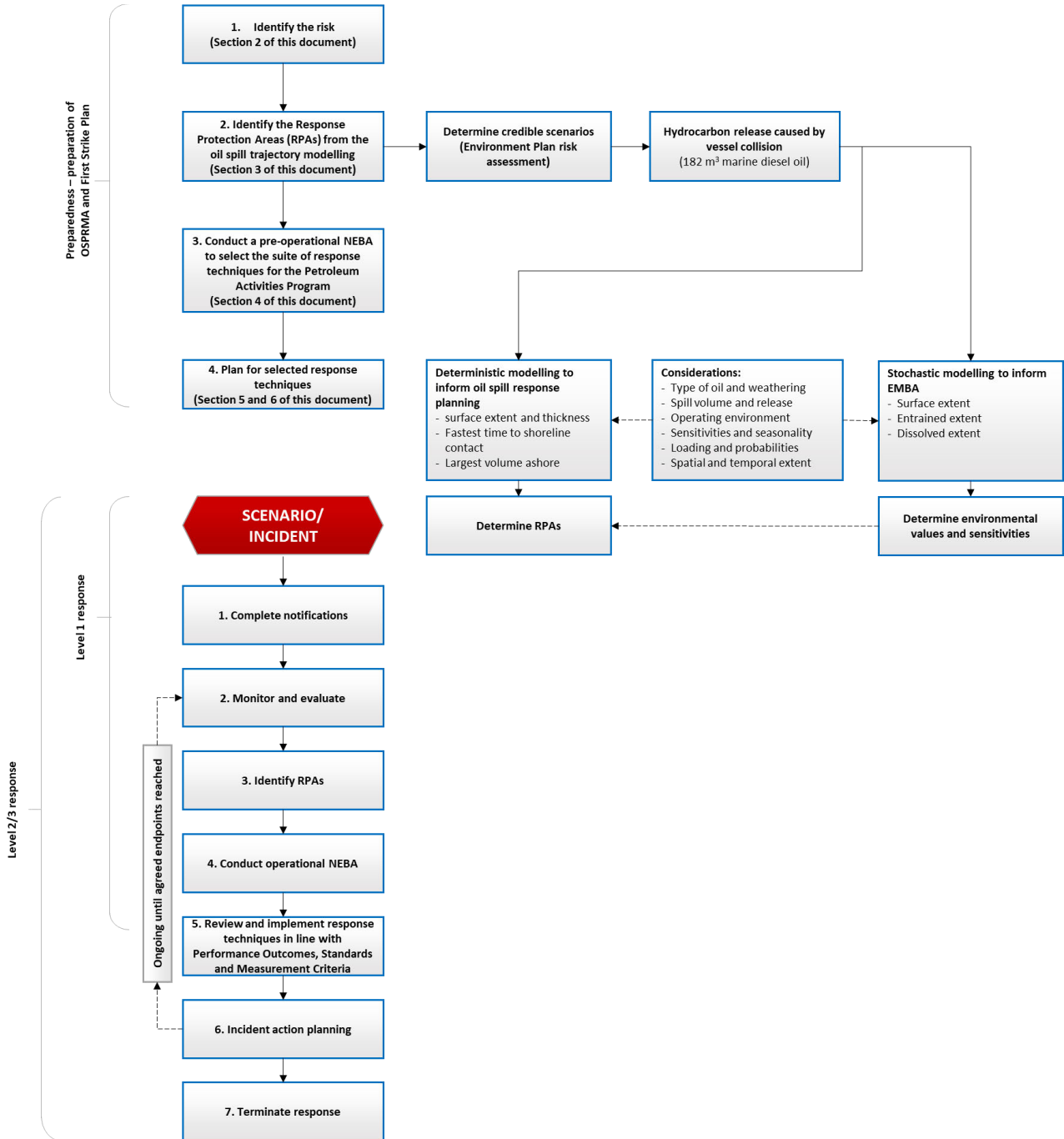


Figure 3-1: Identify Response Protection Areas (RPAs) flowchart

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### 3.1 Identified sensitive receptor locations

Section 8.7.6 of the EP includes the list of sensitive receptor locations that have been identified by stochastic modelling as meeting the requirements outlined below:

- receptors with the potential to incur surface, entrained or shoreline accumulation contact above environmental impact thresholds
- receptors within the EMBA which meet the following:
  - a number of priority protection criteria/categories
  - International Union of Conservation of Nature IUCN marine protected area categories
  - high conservation value habitat and species
  - important socio-economic/heritage value.

### 3.2 Identify Response Protection Areas (RPAs)

RPAs are selected on the basis of their environmental ecological, social, economic, cultural and heritage values and sensitivities and the ability to conduct a response based on the minimum response thresholds.

Based on the stochastic modelling of the WCCS for this PAP, no contact from surface slicks  $> 10 \text{ g/m}^2$  or shoreline accumulation  $> 100 \text{ g/m}^2$  is predicted for any shoreline RPA. Operational monitoring will, however, be undertaken from the outset of a spill to assess the nature of the spill, track its location and inform the need for any additional monitoring and/or response techniques. It will also inform if or when the spill enters State Waters and/or control of the incident passes to statutory authorities e.g. WA Department of Transport (DoT) or AMSA. If operational monitoring does identify RPAs at risk of impact during a real spill event, TRPs for a shoreline response will be drafted in advance for any RPAs with a contact time of  $< 14$  days.

Sensitive receptors are presented the existing environment description (Section 6 of the EP) and impact assessment section (Section 8.7.6 of the EP) for each respective spill scenario. The pre-operational NEBA (Section 4) considers the results from the stochastic modelling to confirm feasible response techniques are considered in the planning phase.

## 4 NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)

A Net Environmental Benefit Analysis (NEBA) is a structured process to consider which response techniques are likely to provide the greatest net environmental benefit.

The NEBA process typically involves four key steps outlined in Figure 4-1: evaluate data, predict outcomes, balance trade-offs, and select response options. These steps are followed in the planning/preparedness process and would also be followed in a response.

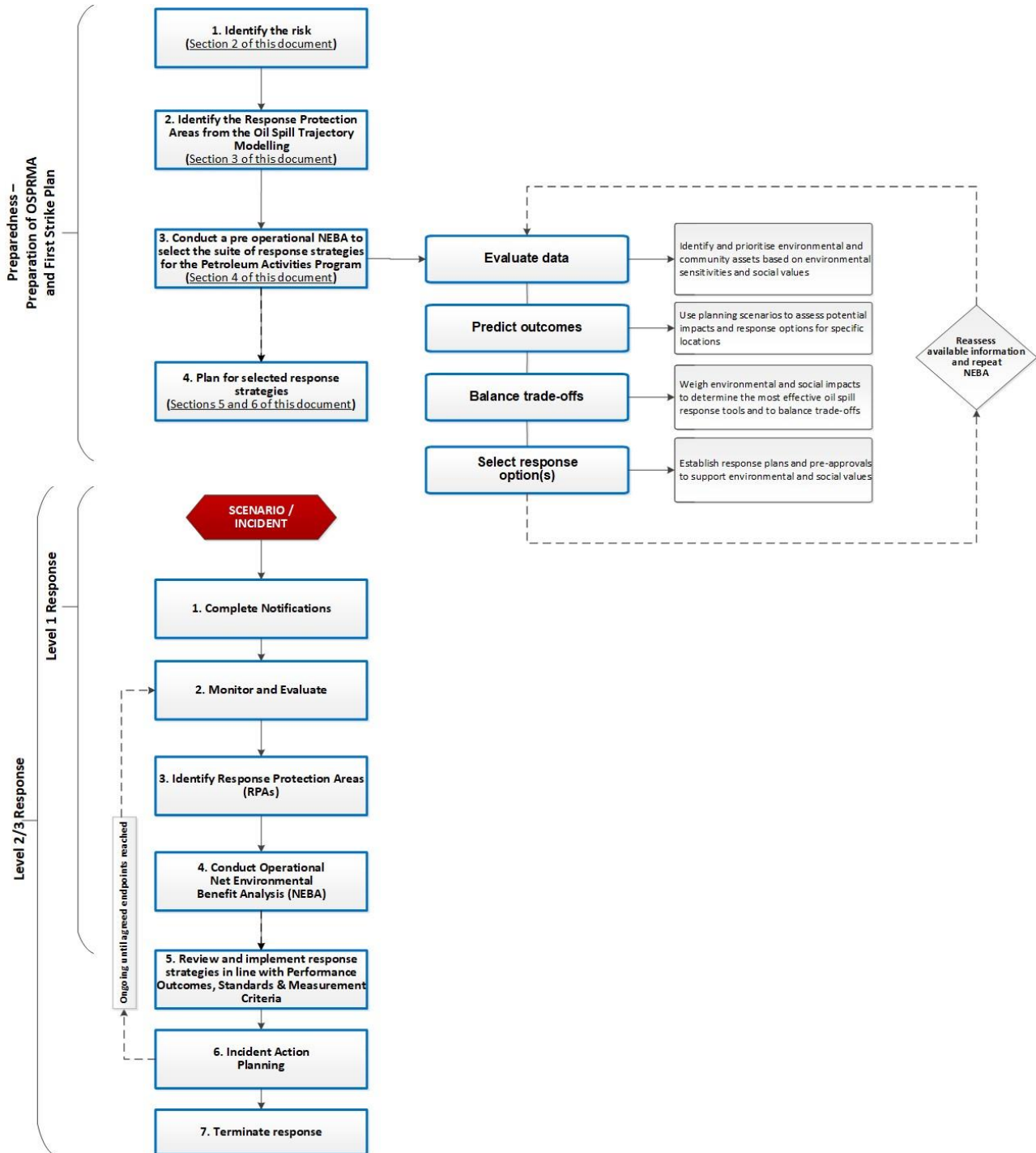


Figure 4-1: Net Environmental Benefit Analysis (NEBA) flowchart

## 4.1 Pre-operational / Strategic NEBA

The pre-operational NEBA identifies positive and negative impacts to sensitive receptors from implementing the response techniques. Feasibility is considered by assessing the receptors potentially impacted above response thresholds and the surface concentrations from the stochastic modelling (note: deterministic modelling was not undertaken as stochastic modelling indicated no shoreline impacts above thresholds).

Completing a pre-operational NEBA is a key response planning control that reduces the environmental risks and impacts of implementing the selected response techniques. Comprehensive details of the pre-operational NEBA for this PAP are contained in ANNEX A: Net Environmental Benefit Analysis detailed outcomes.

## 4.2 Stage 1: Evaluate data

Woodside identifies and prioritises environmental and community assets based on environmental sensitivities and social values, informed through the use of trajectory modelling. Interpretation of stochastic oil spill modelling determines the EMBA for the release, which defines the spatial area that may be potentially impacted by the PAP activities.

### 4.2.1 Define the scenario(s)

Woodside uses scenarios identified from the risk assessment in the EP to assess potential impacts and response options for specific locations. The WCCS is then used for this pre-operational NEBA. Outlier locations with potential environmental impacts, selected from the stochastic modelling may also be included for assessment. Response thresholds and modelling are then used to assess the feasibility/effectiveness and scale of the response. Modelling results are available in Table 2-5.

## 4.3 Stage 2: Predict Outcomes

Woodside uses planning scenarios to assess potential impacts and response options for specific locations. Locations with potential environmental impacts, selected from the stochastic modelling are included for assessment. Response thresholds and modelling are then used to assess the feasibility/effectiveness of a response.

## 4.4 Stage 3: Balance trade-offs

Woodside considers environmental impacts and response effectiveness/ feasibility to determine the most effective oil spill response tools and balance trade-offs, using an automated NEBA tool. The tool considers potential benefits and impacts associated with a response at sensitive receptors and then considers the effectiveness/ feasibility of the response to select the response techniques carried forward to the ALARP assessment. The NEBA can be found in ANNEX A: Net Environmental Benefit Analysis detailed outcomes.

## 4.5 Stage 4: Select Best Response Options

To select the response technique, all the other stages in the NEBA process are considered and used to establish response plans and any pre-approvals to support protection of identified environmental and social values.

The response techniques implemented may vary according to a particular spill. The hydrocarbon type released and the sensitivities of the receptors (both ecological and socio-economic) may influence the response. The pre-operational NEBA broadly evaluates each response technique and supports decisions on whether they are feasible and of net environmental benefit. Response techniques that are not feasible or beneficial are rejected at this stage and not progressed to planning.

Further risks and impacts from implementing these selected response options are outlined in Section 7.

#### 4.5.1 Determining potential response options

The available response techniques based on current technology can be summarised under the following headings:

- Operational monitoring
- Source control via vessel SOPEP
- Surface dispersant application:
  - aerial dispersant application
  - vessel dispersant application
- Mechanical dispersion
- In-situ burning
- Containment and recovery
- Shoreline protection and deflection:
  - protection
  - deflection
- Shoreline clean-up:
  - Phase 1 – mechanical clean-up
  - Phase 2 – manual clean-up
  - Phase 3 – final polishing
- Oiled wildlife response (including hazing)
- Waste management
- Post spill/ scientific monitoring

Table 4-1 includes scenario-specific assessments of feasible response options and justification for the exclusion of inappropriate options. These options are evaluated against the scenario parameters including oil type, volume, characteristics, prevailing weather conditions, logistical support, and resource availability to determine deployment feasibility.

A shortlist of the feasible response options is then carried forward for the ALARP assessment. This assessment will typically result in a range of available options, that are deployed at different areas (at-source, offshore, nearshore and onshore) and different times during the response. The NEBA process assists in prioritising which options to use where and when, and timings throughout the response.



Table 4-1: Response technique evaluation – vessel collision

Response Technique	Effectiveness	Feasibility	Decision	Rationale for the decision
<b>Hydrocarbon: MDO</b>				
Operational Monitoring	<p>Will be effective in tracking the location of the spill, predicting potential impacts and triggering further monitoring and response techniques as required. Monitoring techniques include:</p> <ul style="list-style-type: none"> <li>OM01 Predictive modelling of hydrocarbons – used throughout spill. ‘Ground-truthed’ using the outputs of all other monitoring techniques.</li> <li>OM02 Surveillance and reconnaissance to detect hydrocarbons and resources at risk – from outset of spill.</li> <li>OM03 Monitoring of hydrocarbon presence, properties, behaviour and weathering in water – from outset of spill.</li> <li>OM04 Pre-emptive assessment of sensitive receptors at risk – triggered once OM01, OM02 and OM03 inform likely RPAs at risk.</li> <li>OM05 Shoreline assessment – once OM02, OM03 and OM04 inform if any RPAs have been impacted.</li> </ul>	<p>Monitoring of an MDO spill is a feasible response technique and outputs will be used to guide decision making on the use of other monitoring/response techniques and providing information to regulatory agencies including AMSA and WA DoT. Practicable techniques that could be used for this scenario include predictive modelling (OM01), surveillance and reconnaissance (OM02) and monitoring of hydrocarbon presence in water (OM03).</p> <p>Modelling does not predict impact of any shoreline receptors at threshold, however, pre-emptive assessment of sensitive receptors at risk (OM04) and monitoring of contaminated resources (OM05) would be utilised if any sensitive shoreline receptors are deemed to be at risk of impact.</p>	Yes	<p>Monitoring the spill will be necessary to:</p> <ul style="list-style-type: none"> <li>validate trajectory and weathering models</li> <li>determine the behaviour of the oil in water</li> <li>determine the location and state of the slick</li> <li>provide forecasts of spill trajectory</li> <li>determine appropriate response techniques</li> <li>determine effectiveness of response techniques</li> <li>confirm impact pathways to receptors</li> <li>provide regulatory agencies with required information.</li> </ul>
Source control via vessel SOPEP	Controlling the spill of diesel at source would be the most effective way to limit the quantity of hydrocarbon entering the marine environment.	A spill of diesel from a vessel collision will be instantaneous and source control will be limited to what the vessel or facility can safely achieve whilst responding to the incident.	Yes	Ability to stop the spill at source will be dependent upon the specific spill circumstances and whether or not it is safe for response personnel to access/isolate the source of the spill.
Surface dispersant application	<p>Application of surface dispersant would likely reduce the volumes of hydrocarbons contacting sensitive surface receptors.</p> <p>Dispersant can also enhance biodegradation and may reduce VOCs in some circumstances therefore reducing potential health and safety risk to responders.</p> <p>Dispersant can increase dispersed/entrained hydrocarbons which can potentially have higher toxicity to biota in shallow water than naturally dispersed hydrocarbons.</p> <p>Subsurface oil plume likely to increase in size resulting in greater spatial extent of entrained oil.</p> <p>Entrained oil could potentially impact on sensitive shallow-water receptors e.g. corals, which otherwise may have been unaffected.</p>	<p>Whilst modelling predicts that floating oil will reach the minimum feasible threshold at which to commence surface dispersant application (&gt;50 g/m<sup>2</sup>) within open ocean waters, this technique is not suitable for MDO spills as this hydrocarbon is prone to rapid spreading and evaporation. It is not considered effective when applied on thin surface films such as MDO as the dispersant droplets tend to pass through the surface films without binding to the hydrocarbon resulting in the unnecessary addition of chemicals to the marine environment.</p> <p>The volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of fresh hydrocarbon thus this response technique is deemed inappropriate.</p>	No	The application of dispersant to MDO is unnecessary as the diesel will rapidly evaporate and would thus unnecessarily introduce additional chemical substances to the marine environment. The additional entrainment would also increase exposure of subsea species and habitats to hydrocarbons.
Mechanical dispersion	Mechanical dispersion involves the use of a vessel's prop wash and/or fire hose to target surface hydrocarbons to achieve dispersion into the water column. However, this technique is of limited benefit in an open ocean environment where wind and wave action are likely to deliver similar advantages.	<p>Although the technique is feasible, highly volatile hydrocarbons are likely to weather, spread and evaporate quickly.</p> <p>The volatile nature of the oil likely to lead to unsafe conditions in the vicinity of fresh hydrocarbon.</p> <p>Additionally, any vessel used for mechanical dispersion activities would be contaminated by the hydrocarbon and could potentially cause secondary contamination of unimpacted areas when exiting the spill area.</p> <p>The decontamination of a vessel used for mechanical dispersion activities would result in additional quantities of oily waste requiring appropriate handling and treatment.</p>	No	Given the limited benefit of mechanical dispersion over natural wind and wave action, secondary contamination and waste issues, and the associated safety risk of implementing the response for this activity, this strategy is deemed unsuitable.



Response Technique	Effectiveness	Feasibility	Decision	Rationale for the decision
In-situ burning	In-situ burning is only effective where minimum slick thickness can be achieved.	Use of in-situ burning as a response technique for MDO is unfeasible as the minimum slick thickness cannot be attained due to rapid spreading.  In addition, there is a limited window of opportunity in which this technique can be applied (prior to evaporation of the volatiles) which is unlikely to be achieved.  Furthermore, entering a volatile environment to undertake this technique would be unsafe for response personnel and its used would unnecessarily cause an increase the release of atmospheric pollutants.	No	Diesel characteristics are not appropriate for the use of in-situ burning and would unnecessarily cause an increase the release of atmospheric pollutants.
Containment and recovery	Containment and recovery has an effective recovery rate of 5-10% when a hydrocarbon encounter rate of 25-50% is achieved at BAOAC 4 and 5 with a 50-100% coverage of 100 g/m <sup>2</sup> to 200 g/m <sup>2</sup> .	Whilst modelling predicts that floating oil will reach the minimum feasible threshold at which to commence containment and recovery (50 g/m <sup>2</sup> ) within open ocean waters this technique is not suitable for MDO spills as it is prone to rapid spreading and evaporation and is deemed unsuitable for effective containment and recovery operations.  The volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon thus this response technique is deemed inappropriate.	No	Containment and recovery would be an inappropriate response technique for a spill of MDO. Corraling a volatile hydrocarbon such as MDO is deemed unsafe for response personnel thus this response strategy is not considered feasible. In addition to the safety issues, most of the spilled diesel would have been subject to rapid evaporation prior to the commencement of containment and recovery operations.
Shoreline protection and deflection	Shoreline protection and deflection can be effective at preventing contamination of at-risk areas.	An MDO spill would be prone to rapid spreading and evaporation and modelling predicts that no shoreline receptors will be contacted at threshold.  Furthermore, the volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon.  Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.	No	In addition to safety issues and the rapid spreading and evaporation of the diesel, the modelling undertaken predicts that no shoreline receptors would be contacted by floating oil concentrations at any of the assessed thresholds.
Shoreline clean-up	Shoreline clean-up is an effective means of hydrocarbon removal from contaminated shorelines where coverage is at an optimum level of 250 g/m <sup>2</sup> .	An MDO spill would be prone to rapid spreading and evaporation and the modelling predicts that no shoreline receptors will be contacted at threshold – any minor contact is significantly below any threshold concentration that would allow a response to be feasible.  Furthermore, the volatile nature of MDO is also likely to lead to unsafe conditions in the vicinity of the hydrocarbon.  Operational monitoring will, however, be deployed from the outset of a spill to track the spill location and fate in real-time.	No	In addition to safety issues, the modelling undertaken predicts that no shoreline receptors would be contacted by floating oil concentrations at a recoverable threshold and a spill of MDO is unlikely to accumulate at concentrations appropriate for shoreline clean-up techniques.
Oiled wildlife response	Oiled wildlife response is an effective response technique for reducing the overall impact of a spill on wildlife. This is mostly achieved through hazing to prevent additional wildlife from being contaminated and through rehabilitation of those already subject to contamination.	Due to the likely volatile atmospheric conditions surrounding a diesel spill, response options may be limited to hazing for the safety of response personnel.  The modelling undertaken predicts that no sensitive areas will be impacted thus it is unlikely that this technique would be required.  Monitor and evaluate will, however, be deployed from the outset of a spill to track the spill location and fate in real-time. Thus, in the event that wildlife are at risk of contamination, oiled wildlife response will be undertaken in accordance with the Wildlife Response Operational Plan as and where required. In addition, any rehabilitation could only be undertaken by trained specialists.	Yes	The modelling undertaken predicts that no sensitive areas will be impacted thus it is unlikely that this technique would be required. However, in the event that wildlife are at risk of contamination, oiled wildlife response will be undertaken as and where required.



## 5 HYDROCARBON SPILL ALARP PROCESS

Woodside's hydrocarbon spill ALARP process is aligned with guidance provided by NOPSEMA in *ALARP Guidance Note N-04300-GN0166* (2022) and *Oil Spill Risk Management Guidance Note N-04750-GN1488* (2021) and is set out in the 'Woodside Oil Spill Preparedness and Response Mitigation Assessment (OSPRMA) Guidelines'.

From the identified response planning need and pre-operational NEBA/SIMA, Woodside conducts a structured, semi-quantitative hydrocarbon spill process which has the following steps:

1. considers the Response Planning Need identified in terms of surface area (km<sup>2</sup>) and available surface hydrocarbon volumes (m<sup>3</sup>) against existing Woodside capability
2. considers alternative, additional, and improved options for each response technique/control measure by providing an initial and, if required, detailed evaluation of:
  - predicted cost associated with adopting the control measure
  - predicted change/environmental benefit
  - predicted effectiveness/feasibility of the control measure.
3. evaluates the risks and impacts of implementing the proposed response techniques, and any further control measures with associated environmental performance to manage these additional risks and impacts.

Woodside considers the risks and impacts from a hydrocarbon spill to have been reduced to ALARP when:

1. a structured process for identifying and considering alternative, additional, and improved options has been completed for each selected response technique
2. the analysis of alternate, additional, and improved control measures meets one of the following criteria:
  - all identified, reasonably practicable control measures have been adopted; or
  - no identified reasonably practicable additional, alternative and/or improved control measures would provide further overall increased proportionate environmental benefit; or
  - no reasonably practical additional, alternative, and/or improved control measures have been identified.
3. where an alternative, additional and/or improved control measure is adopted, a measurable level of environmental performance has been assigned
4. higher order impacts/ risks have received more comprehensive alternative, additional, and improved control measure evaluations and do not just compare the cost of the adopted control measures to the costs of an extreme or clearly unreasonable control measure
5. cumulative effects have been analysed when considered in combination across the whole activity.

The response technique selection is based on the risk assessment conducted in the EP. The risk assessment identifies the type of oil, volume of release, duration of release, predicted fate, weathering and the EMBA (along with other requirements such as time to impact and predicted volumes ashore). Modelling is then used to inform the NEBA and the prioritisation of suitable response options. The scale of the response techniques selected in the pre-operational NEBA is informed through the assessment of results from the oil spill modelling, noting that deterministic modelling was not undertaken as stochastic modelling indicated no shoreline impacts above thresholds.

For the purpose of the ALARP assessment, the following terms and definitions have been used:

- Response techniques are considered the control measures that reduce consequences from hydrocarbon spill events. The terms 'response technique' and 'control measure' are used interchangeably.
- Cost is defined as the time, effort and/or trouble taken in financial, safety, design/storage/installation, capital/lease, and/or operations/maintenance terms to adopt a control measure.
- Where the predicted change to environmental impact is compared against standard environmental values and sensitivities impacts using positive or negative criteria from the NEBA Impact Ranking Classification Guidance in Annex A.

## 5.1 Operational Monitoring

Operational Monitoring includes the gathering and evaluation of data to inform the oil spill response planning and operations. It includes fate and trajectory modelling, spill tracking, weather updates and field observations. This response option is deployed in some capacity for every event.

The table below provides the operations monitoring plans that support the successful execution of this response technique.

**Table 5-1: Description of supporting operational monitoring plans**

ID	Title
OM01	Predictive modelling of hydrocarbons to assess resources at risk
OM02	Surveillance and reconnaissance to detect hydrocarbons and resources at risk
OM03	Monitoring of hydrocarbon presence, properties, behaviour and weathering in water
OM04	Pre-emptive assessment of sensitive receptors at risk
OM05	Shoreline assessment

Woodside maintains an *Operational Monitoring Operational Plan*. If shoreline contact is predicted, Response Protection Areas (RPAs) will be identified and assessed before contact. In the unlikely event that shorelines are contacted, a shoreline assessment survey will be completed to guide effective shoreline clean-up operations. This plan includes the process for the IMT to mobilise resources depending on the nature and scale of the spill.

The proximity of Dampier, Port Hedland, Onslow and Exmouth to the spill event location means that multiple logistical options are available to monitor the spill in relatively short timeframes. The primary mobilisation base for initial monitoring activities would be Dampier. However, in the unlikely event of an extended spill with potential to impact receptors further afield, monitoring activities may also be mobilised from Exmouth, Onslow and Port Hedland.

### 5.1.1 Response need based on predicted consequence parameters

The following statements identify the key parameters upon which a response need can be based:

- Floating surface oil in sufficient concentrations for effective operational monitoring is expected to be present with surface concentrations of 50 g/m<sup>2</sup> extending up to 18 km, 10 g/m<sup>2</sup> up to 50 km and 1 g/m<sup>2</sup> up to 85 km from the release location, respectively, for scenario CS-01. No shoreline contact from floating oil and no shoreline accumulation are predicted for any shoreline RPA. The open ocean waters of the Montebello MP are contacted at this threshold in 1 hour.
- The shortest time to contact for oil at concentrations of entrained hydrocarbons greater than 100 ppb at shoreline receptors is 120 hours at Barrow Island. The open ocean waters of the Montebello MP are contacted at this threshold in 1 hour.
- Arrangements for support organisations who provide specialist services or resources should be tested regularly.
- Plans, procedures and support documents need to be in place for Operational and Support Sections. These should be reviewed and updated regularly.
- The duration of the spill would be instantaneous with response operations extending until the hydrocarbon discharge has ceased, surface hydrocarbons are no longer visible, and no additional response or clean-up of wildlife or habitats is predicted.

## 5.1.2 Environmental performance based on need

Table 5-2: Environmental Performance – Operational Monitoring

Environmental Performance Outcome		To gather information from multiple sources to establish an accurate common operating picture as soon as possible and predict the fate and behaviour of the spill to validate planning assumptions and adjust response plans as appropriate to the scenario.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
1	Oil spill trajectory modelling	1.1	Initial modelling available within 6 hours using the Rapid Assessment Tool.	1, 3B, 3C, 4
		1.2	Detailed modelling available within 4 hours of RPS receiving information from Woodside.	
		1.3	Detailed modelling service available for the duration of the incident upon contract activation.	
2	Tracking buoy	2.1	Tracking buoy located on vessel and ready for deployment 24/7.	1, 3A, 3C, 4
		2.2	Deploy tracking buoy from vessel within 2 hours as per the First Strike Plan.	1, 3A, 3B, 4
		2.3	Contract in place with service provider to allow data from tracking buoy to be received 24/7 and processed.	1, 3B, 3C, 4
		2.4	Data received to be uploaded into Woodside Common Operating Picture (COP) daily to improve the accuracy of other Operational Monitoring techniques.	1, 3B, 4
2	Satellite imagery	3.1	Contract in place with 3 <sup>rd</sup> party provider to enable access and analysis of satellite imagery. Imagery source/type requested on activation of service.	1, 3C, 4
		3.2	3 <sup>rd</sup> party provider will confirm availability of an initial acquisition within 2 hours.	1, 3B, 3C, 4
		3.3	First image received with 24 hours of Woodside confirming to 3 <sup>rd</sup> party provider its acceptance of the proposed acquisition plan.	1
		3.4	3 <sup>rd</sup> party provider to submit report to Woodside per image. Report is to include a polygon of any possible or identified slick(s) with metadata.	1
		3.5	Data received to be uploaded into Woodside COP daily to improve accuracy of other Operational Monitoring techniques.	1, 3B, 4
		3.6	Satellite Imagery services available and employed during response.	1, 3C, 4
4	Aerial surveillance	4.1	Two trained aerial observers available to be deployed by day 1 from resource pool.	1, 2, 3B, 3C, 4
		4.2	One aircraft available for two sorties per day, available for the duration of the response from day 1.	1, 3C, 4
		4.3	Observer to compile report during flight as per First Strike Plan. Observers report available to the IMT within 2 hours of landing after each sortie.	1, 2, 3B, 4

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Environmental Performance Outcome		To gather information from multiple sources to establish an accurate common operating picture as soon as possible and predict the fate and behaviour of the spill to validate planning assumptions and adjust response plans as appropriate to the scenario.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
		4.4	Unmanned Aerial Vehicles/Systems (UAV/UASs) to support pre-emptive assessments as contingency if required.	1, 2
5	Hydrocarbon detections in water	5.1	Activate 3 <sup>rd</sup> party service provider as per first strike plan. Deploy resources within 3 days: <ul style="list-style-type: none"> <li>• 2 specialists in water quality monitoring</li> <li>• 2 monitoring systems and ancillaries</li> <li>• 1 vessel for deploying the monitoring systems with a dedicated winch, A-frame or Hiab and ancillaries to deploy the equipment.</li> </ul>	1, 2, 3C, 3D, 4
		5.2	Water monitoring services available and employed during response	1, 3C, 4
		5.3	Preliminary results of water sample as per contractor's implementation plan within 7 days of receipt of samples at the accredited lab	
		5.4	Daily fluorometry reports as per service provider's implementation plan will be provided to IMT to validate modelling and monitor presence/ absence of entrained hydrocarbons.	
		5.5	Use of Autonomous Underwater Vehicles (AUVs) for hydrocarbon presence and detection may be used as a contingency if the operational SIMA confirms conventional methods are unsafe or not possible.	1, 2, 3C, 4
6	Pre-emptive assessment of sensitive receptors	6.1	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 2 specialists from resource pool in establishing the status of sensitive receptors.	1, 2, 3B, 3C, 4
		6.2	Daily reports provided to IMT on the status of the receptors to prioritise Response Protection Areas (RPAs) and maximise effective utilisation of resources.	1, 3B, 4
7	Shoreline assessment	7.1	10 days prior to any impact predicted by OM01/02/03, and in agreement with WA DoT (for Level 2/3 incidents), deployment of 1 specialist(s) in Shoreline Contamination Assessment Techniques (SCAT) from resource pool for each of the Response Protection Areas (RPAs) with predicted impacts	1, 2, 3B, 3C, 4
		7.2	SCAT reports provided to IMT daily detailing the assessed areas to maximise effective utilisation of resources	1, 3B, 4
		7.3	Shoreline access routes with the least environmental impact identified will be selected by a specialist in SCAT operations	1
8	Management of Environmental	8.1	If vessels are required for access, anchoring locations will be selected to minimise disturbance to benthic primary producer habitats. Where existing fixed	1

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<b>Environmental Performance Outcome</b>		To gather information from multiple sources to establish an accurate common operating picture as soon as possible and predict the fate and behaviour of the spill to validate planning assumptions and adjust response plans as appropriate to the scenario.		
<b>Control measure</b>		<b>Performance Standard</b>		<b>Measurement Criteria (Section 5.7)</b>
	Impact of the response risks		anchoring points are not available, locations will be selected to minimise impact to nearshore benthic environments with a preference for areas of sandy seabed where they can be identified	
		8.2	Shallow draft vessels will be used to access remote shorelines to minimise the impacts associated with seabed disturbance on approach to the shorelines	1

The control measures and capability of Woodside and its third-party service providers are shown to support Operational Monitoring activities up to and including the identified WCCS. This is demonstrated by the following:

- Woodside has a documented, structured and tested capability for Operational Monitoring operations including internal trajectory modelling capabilities, tracking buoys located offshore and contracted aerial observation platforms with access to trained observers.
- Woodside and its third-party service providers anticipate there is sufficient capability for the duration of the response.
- Woodside has assessed the existing capability available and considered potential alternative, additional and improved control measures. Where control measures have been selected and implemented, they are included in Section 6.1.2.

## 5.2 Source Control via Vessel SOPEP

Vessel source control will be conducted, where feasible and in accordance with MARPOL 73/78 Annex I, by the Vessel Master under the Shipboard Oil Pollution Emergency Plan (SOPEP) triggered by any loss of containment from the PAP vessels.

The SOPEP provides guidance to the Master and Officers on board the vessel with respect to the extra steps to be taken when an unexpected pollution incident has occurred or is likely to occur. The SOPEP contains all information and operational instructions required by IMO Resolution MEPC.54 (32) adopted on 6 March 1992, as amended by resolution MEPC.86 (44) adopted on 13 March 2000.

Its purpose is to set in motion the necessary actions to stop or minimise oil discharge and mitigate its effects and outlines responsibilities, pollution reporting requirements, procedures and resources needed in the event of a hydrocarbon spill from vessel activities.

In the event of the WCCS vessel collision event, the vessel master may engage precautionary marine manoeuvres to avoid collision or commence pumping operations to transfer MDO and thus minimise the release.

### 5.2.1 Environmental performance based on need

Woodside has established control measures, environmental performance outcomes, performance standards and measurement criteria to be used for vessel-source oil spill response during the PAP which are detailed in Section 8.7.6 of the EP. The vessel master's roles and responsibilities are described in EP Section 9.3.

Performance standards for each contracted PAP vessel are detailed in the vessel's specific SOPEP.

These standards are in place so that sufficient resources are available and are adequately tested to allow implementation of the SOPEP in the event of a hydrocarbon spill.

### 5.3 Oiled wildlife response (including hazing)

Oiled wildlife response (OWR) includes wildlife surveillance/reconnaissance, wildlife hazing, pre-emptive capture, and the capture, cleaning, treatment, and rehabilitation of animals that have been oiled. In addition, it includes the collection, post-mortem examination, and disposal of deceased animals that have succumbed to the effects of oiling.

For a petroleum activity spill in Commonwealth waters, Woodside will act as the Control Agency and will be responsible for the wildlife response. In such circumstances, Woodside would implement a response in accordance with the *Oiled Wildlife Operational Plan*, the WA Oiled Wildlife Response Plan (WAOWRP) (DBCA, 2022a) and the WA OWR Manual (DBCA, 2022b). The *Oiled Wildlife Operational Plan* includes the process for the IMT to mobilise resources depending on the nature and scale of the spill. Oiled wildlife operations would be implemented with advice and assistance from the Oiled Wildlife Advisor from the Department of Biodiversity, Conservation and Attractions (DBCA).

The key plan for OWR in WA is the Western Australian Oiled Wildlife Response Plan (WAOWRP) (DBCA, 2022a). The WAOWRP establishes the framework for preparing and responding to potential or actual wildlife impacts during a spill and sets out the management arrangements for implementing an OWR in conjunction with the DoT *State Hazard Plan – Maritime Environmental Emergencies* (SHP-MEE). It is the responsibility of DBCA to administer the WAOWRP under the direction of the DoT. The WA OWR Manual (DBCA, 2022b) supports, and should be used in conjunction with, the WAOWRP. The purpose of the WA OWR Manual is to standardise the operating procedures, protocols and processes for an OWR during a spill event in WA waters, and to create alignment between the wildlife response processes and the overall incident response (DBCA, 2022b).

If a spill occurs in WA State waters or enters State waters, DBCA is the Jurisdictional Authority for wildlife for level 2/3 spills and will also lead the oiled wildlife response under the control of the DoT. DBCA is the State Government agency responsible for administering the *Biodiversity Conservation Act 2016* (WA) (BC Act) which has provisions for authorising activities that affect wildlife.

For level 1 spills in State waters, Woodside will be the Control Agency, including for wildlife response. It is, however, also an expectation that for level 2/3 petroleum activity spills, Woodside will conduct the initial first-strike response actions for wildlife response and continue to manage those operations until DBCA is activated as the lead agency for wildlife response and formal handover occurs. Following formal handover, Woodside will function as a support organisation for the OWR and will be expected to continue to provide planning and resources as required.

Woodside retains specialist personnel to support and manage oiled wildlife operations, including trained and competent responders for deployment in Exmouth and Dampier. Additional personnel would be sourced through Woodside's arrangements to support an oiled wildlife response as required.

#### 5.3.1 Response need based on predicted consequence parameters

##### Wildlife Response Priority Areas and Assessment of Wildlife Impact

French-McCay et al. (2002), based on a review of existing literature at the time, determined lethal thresholds for floating and shoreline oil for the external coating of wildlife to be 10 g/m<sup>2</sup> for floating, and 100 g/m<sup>2</sup> for shoreline accumulation. It should however be noted that toxicity thresholds for wildlife are likely to be highly variable due to differences in species sensitivity, type of hydrocarbon, type of exposure (ingestion or external oiling), life-stage, and on-water versus land habitat.

For planning purposes, determination of wildlife priority protection areas is based on stochastic modelling of the worst-case spill scenarios at 10 g/m<sup>2</sup> for floating, and 100 g/m<sup>2</sup> for shoreline accumulation (acknowledging that impacts to wildlife may occur at lower concentrations), the known presence of wildlife, and in consideration of the following:

- Presence of high densities of wildlife, threatened species, and/or endemic species with high site fidelity



- Greatest probability of shoreline accumulation
- Shortest timeframe to contact

Table 5-3 outlines the wildlife response priority areas for this activity. At the time of a spill, identification and allocation of wildlife response priority areas should also take into consideration any key biological activities. Additional detail regarding species and their key biological activities within the vicinity of the PAP are described in Section 4 of the *Goodwyn Alpha Geophysical and Geotechnical Surveys Environment Plan*.

At the time of a spill, identification and allocation of wildlife response priority areas should also take into consideration any key biological activities.

For WA, although somewhat out-dated, the Pilbara and Kimberley Regional Oiled Wildlife Plans (DBCA [formerly Department of Parks and Wildlife], 2014) provide useful information relating to wildlife priority response areas in their respective regions.

**Table 5-3: Key at-risk species potentially in open ocean waters**

Species	Open ocean
Marine turtles (including traversing/migrating and/or foraging)	✓
Whale sharks	✓
Sea snakes	✓
Seabirds and/or migratory shorebirds	✓
Cetaceans – migratory whales	✓
Cetaceans – dolphins and porpoises	✓
Dugongs	x
Sharks and rays	✓

The following statements identify the key parameters upon which a wildlife response need can be based:

- Floating oil at  $>10 \text{ g/m}^2$  is predicted to be restricted to within 50 km of the release location and may contact the Montebello MP (offshore/submerged) within 1 hour. Floating oil at  $>10 \text{ g/m}^2$  and shoreline accumulation  $>100 \text{ g/m}^2$  are not predicted for any shoreline receptor.
- At sea there are likely to be low numbers of at risk or impacted wildlife, and limited opportunities to rescue wildlife, given the distribution and behaviour of animals in the open marine environment.
- It is estimated that the wildlife impact would be between low and medium, as defined in the WAOWRP (DBCA, 2022a) (Table 5-4).

**Table 5-4: WAOWRP Guide for rating wildlife impact of an oil spill (DBCA, 2022)**

Wildlife Impact Rating	Low	Medium	High
What is the likely duration of the wildlife response?	<3 days	3-10 days	>10 days
What is the likely total intake of animals?	<10	11-25	>25
What is the likely daily intake of animals?	0-2	2-5	>5
Are threatened species, or species protected by treaty, likely to be impacted, either directly or by pollution of habitat or breeding areas?	No	Yes – possible	Yes – likely
Is there likely to be a requirement for building primary care facility for treatment, cleaning and rehabilitation?	No	Yes – possible	Yes – likely

### Tactics

Where there is imminent or actual impact to wildlife, Woodside will activate the Wildlife Division and follow the oiled wildlife incident management framework and implementation plan outlined in the *Woodside Oiled Wildlife Operational Plan*.

In Commonwealth waters, Woodside will be responsible for the planning and implementation of the OWR in its entirety. Noting that at sea, and in comparison, to the shoreline, there are likely to be less wildlife impacted by an oil spill and limited opportunities to rescue wildlife, given the distribution and behaviour of animals in the open marine environment. At sea, continued wildlife reconnaissance, carcass recovery, sampling of carcasses that cannot be retrieved and integration with scientific monitoring are more likely to be the focus of the OWR.

In State waters, Woodside will conduct the initial first-strike response actions for wildlife and continue to manage those operations until DBCA is activated as the lead agency for wildlife response and formal handover occurs. Following formal handover, Woodside will function as a support organisation for the OWR and will be expected to continue to provide planning and resources as required.

If a protracted response requiring preventative actions and/or wildlife rescue is likely, and formal hand over to the Control Agency (in State waters) has not yet occurred, the Wildlife Division will be responsible for the development of the Wildlife Division portion of the IAP. Preventative actions, such as hazing, capture, intake and treatment, require a higher degree of planning, approval (licences) and skills. These activities will be planned for and carried out under the IAP as outlined in the *Oiled Wildlife Operational Plan* and in accordance with the WAOWRP (DBCA, 2022a) and WA OWR Manual (DBAC, 20022b).

### 5.3.2 Environmental performance based on need

Table 5-5: Environmental Performance – Oiled Wildlife Response

Environmental Performance Outcome		Oiled Wildlife Response is conducted in accordance with the Western Australian Oiled Wildlife Response Plan (WAOWRP, 2022a) to ensure it is conducted in accordance with legislative requirements to house, release or euthanise wildlife under the <i>Biodiversity Conservation Act 2016</i> (WA).		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
9	Wildlife response arrangements	9.1	Oiled Wildlife Operational Plan in place and utilised during a response to plan, coordinate, implement and terminate operations	1, 3A, 4
		9.2	Initiate a wildlife first strike response within 2 days of confirmed or imminent wildlife contact as directed by relevant Operational Monitoring techniques (OM01-05) and in liaison with DBCA	1
10	Wildlife response equipment	10.1	Maintain contract with AMOSC for immediate access to oiled wildlife response equipment.	1, 3C, 3D, 4
		10.2	Maintain contract with OSRL to access additional oiled wildlife response equipment.	1, 3C, 3D, 4
11	Wildlife responders	11.1	Two Oiled Wildlife Team Members to supervise the oiled wildlife operations who have completed an Oiled Wildlife Response Management course.	1, 2, 3B
		11.2	Maintain contract with AMOSC for immediate access to trained oiled wildlife response specialists	1, 3B, 3C
		11.3	Maintain contract with OSRL to access additional trained oiled wildlife response specialists	1, 3B, 3C
		11.4	Open communication line to be maintained between IMT and infield operations to ensure awareness of progress against plan(s).	1, 3A, 3B
12	Management of environmental impacts of response risks	12.1	Oiled wildlife operations (including hazing) would be implemented with advice and assistance from the Oiled Wildlife Advisor from the DBCA, and in accordance with the processes and methodologies described in the WAOWRP and the relevant regional plan.	1

The resulting wildlife response capability has been assessed against the WCCS (scenario CS-01). The range of techniques provide an ongoing approach to response at identified RPAs.

Under optimal conditions during surface release the capability available meets the need identified. It indicates that, the wildlife response capability has the following expected performance:

- Undertake OWR first strike response:
  - Mobilisation of operational monitoring (OM01-05) to identify wildlife and RPAs contacted or at imminent risk of contact by hydrocarbons.
- Availability and mobilisation of trained OWR personnel to supervise OWR activities.
- Access to wildlife resources (personnel and equipment) to meet the needs where there are medium or high levels of wildlife impact.



## 5.4 Waste Management

Waste management is considered a support technique to wildlife response. Waste generated and collected during the response that will require handling, management and disposal may consist of:

- Liquids (hydrocarbons and contaminated liquids) collected during wildlife response, and/or
- Solids/semi-solids (oily solids, garbage, contaminated materials) and debris (e.g. seaweed, sand, woods, and plastics) collected during wildlife response.

Expected waste volumes during an event are likely to vary depending on oil type, volume released, response techniques employed and how weathering of hydrocarbons. Waste management, handling and capacity should be scalable so continuous response operations can be maintained.

All waste management activities will follow the *Environment Protection (Controlled Waste) Regulations 2004 (WA)* and the waste will be managed to minimise final disposal volumes. Waste treatment techniques will consider contaminated solids treatment to allow disposal to landfill and solids with high concentrations of hydrocarbon will be treated and recycled where possible or used in clean fill if suitable.

The waste products would be transported from response locations to the nearest suitable staging area/waste transfer station for treatment, disposal or recycling. Waste will be transferred with appropriately licensed vehicles. Containers will be available for temporary waste storage and will be:

- labelled with the waste type
- provided with appropriate lids to prevent waste being blown overboard
- banded if storing liquid wastes.
- processes will be in place for transfers of bulk liquid wastes and include:
  - inspection of transfer hose undertaken prior to transfer
  - watchman equipped with radio visually monitors loading hose during transfer
  - tank gauges monitored throughout operation to prevent overflow.

The *Oil Spill Preparedness Waste Management Support Plan* details the procedures, capability and capacity in place between Woodside and its primary waste services contractor to manage waste volumes generated from response activities.

### 5.4.1 Response need based on predicted consequence parameters

Table 5-6: Response Planning Assumptions – Waste Management

Response planning assumptions: Waste management	
Waste loading per m <sup>3</sup> oil recovered (multiplier)	OWR – approximately 1 m <sup>3</sup> of oily solid and liquid waste generated for each wildlife unit cleaned

## 5.4.2 Environmental performance based on need

Table 5-7: Environmental Performance – Waste Management

Environmental Performance Outcome		To minimise further impacts, waste will be managed, tracked and disposed of in accordance with laws and regulations.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
13	Waste Management	13.1	Contract with waste management services for transport, removal, treatment and disposal of waste	1, 3A, 3B, 3C, 4
		13.2	Access to at least 2 m <sup>3</sup> of solid and liquid waste storage available within 2 days upon activation of 3 <sup>rd</sup> party contract.	
		13.3	Access to at least 25 m <sup>3</sup> by end of Day 1.	
		13.4	Recovered hydrocarbons and wastes will be transferred to licensed treatment facility for reprocessing or disposal.	
		13.5	Waste management provider support staff available year-round to assist in the event of an incident with waste management as detailed in contract.	
		13.6	Open communication line to be maintained between IMT and waste management services to facilitate the reliable flow of accurate information between parties.	1, 3A, 3B
		13.7	Waste management to be conducted in accordance with Australian laws and regulations	1, 3A, 3B, 3C, 4
		13.8	Waste management services available and employed during response	
14	Management of environmental impacts of response risks	14.1	Teams will segregate liquid and solid wastes at the earliest opportunity.	1, 3A, 3B, 3C, 4

The resulting waste management capability has been assessed against the WCCS (scenario CS-01). The range of techniques provide an ongoing approach to waste management at identified RPAs.

Given that modelling predicts that there will be no floating oil at recoverable threshold concentrations and no shoreline impact at feasible clean-up threshold concentrations, the only waste management requirements will be for oiled wildlife response and the capability available therefore exceeds the need identified. The waste management capability has the following expected performance:

- OWR operations may generate up to 1 m<sup>3</sup> per day.
- Woodside has assessed the existing capability available and considered potential alternative, additional and improved control measures. Where control measures have been selected and implemented, they are included in Section 6.3.
- Woodside's waste contractor has access to approximately 120,000 m<sup>3</sup> of waste storage capacity to treat overall waste volumes. The waste management requirements are within Woodside's and its service providers existing capacity.

## 5.5 Scientific monitoring

A scientific monitoring program (SMP) would be activated following a Level 2 or 3 unplanned hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors. This would consider receptors at risk (ecological and socio-economic) for the entire predicted EMBA and in particular, any identified Pre-emptive Baseline Areas (PBAs) for the credible spill scenario(s) or other identified unplanned hydrocarbon releases associated with the Petroleum Activities Program (PAP) (refer to 2-3: PAP credible spill scenarios).

The outputs of the stochastic hydrocarbon spill modelling are used to assess the environmental risk, in terms of delineating which areas of the marine environment are predicted to be exposed to hydrocarbons exceeding environmental threshold concentrations (Section 2.3). The summary of all the locations where hydrocarbon thresholds could be exceeded by any of the simulations for both scenarios modelled (CS-01 and CS-02) is defined as the EMBA.

It should be noted that the resulting SMP receptor locations may differ from the Response Protection Areas (RPAs) presented and discussed in Section 3 of this document due to the applicability of different hydrocarbon threshold levels, and the response is based on the WCCS (CS-01) solely. The SMP would be informed by the data collected via the operational monitoring program (OMP) studies, however, it differs from the OMP in being a long-term program independent of, and not directing, the operational oil spill response or monitoring of impacts from response activities (refer to Section 5.1) for operational monitoring overview).

Key objectives of the Woodside oil spill scientific monitoring program are:

- Assess the extent, severity and persistence of the environmental impacts from the spill event; and
- Monitor subsequent recovery of impacted key species, habitats and ecosystems.

The SMP comprises ten targeted environmental monitoring programs to assess the condition of a range of physio-chemical (water and sediment) and biological (species and habitats) receptors including *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) listed species, environmental values associated with protected areas and socio-economic values, such as fisheries. The ten SMPs are as follows:

- SM01 – Assessment of the presence, quantity and character of hydrocarbons in marine waters (linked to OM01 to OM03)
- SM02 – Assessment of the presence, quantity and character of hydrocarbons in marine sediments (linked to OM01 and OM05)
- SM03 – Assessment of impacts and recovery of subtidal and intertidal benthos
- SM04 – Assessment of impacts and recovery of mangroves/saltmarsh habitat
- SM05 – Assessment of impacts and recovery of seabird and shorebird populations
- SM06 – Assessment of impacts and recovery of nesting marine turtle populations
- SM07 – Assessment of impacts to pinniped colonies including haul-out site populations
- SM08 – Desktop assessment of impacts to other non-avian marine megafauna
- SM09 – Assessment of impacts and recovery of marine fish (linked to SM03)
- SM10 – Assessment of physiological impacts to important fish and shellfish species (fish health and seafood quality/safety) and recovery.

These SMPs have been designed to cover all key tropical and temperate habitats and species within Australian waters and broader, if required. A planning area for scientific monitoring is also identified to acknowledge potential hydrocarbon contact below the environmental threshold concentrations





### 5.5.1 Scientific Monitoring Deployment Considerations

Scientific Monitoring Deployment Considerations	
Existing baseline studies for sensitive receptor locations predicted to be affected by a spill	<p>Pre-emptive Baseline Areas (PBAs) of the following two categories:</p> <ul style="list-style-type: none"> <li>• PBAs within the predicted &lt;10-day hydrocarbon contact time prediction: The approach is to conduct a desktop review of available and appropriate baseline data for key receptors for locations (if any) that are potentially impacted within 10 days of a spill and look to conduct baseline data collection to address data gaps and demonstrate spill response preparedness. Planning for baseline data acquisition is typically commenced pre-PAP and execution of studies undertaken with consideration of weather, receptor type, seasonality and temporal assessment requirements.</li> <li>• PBAs &gt;10 days time to predicted hydrocarbon contact in the event of an unplanned hydrocarbon release (from the vessel operational activities). SMP activation (as per the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys First Strike Plan</i>) directs the SMP team to follow the steps outlined in the SMP Operational Plan. The steps include: checking the availability and type of existing baseline data, with particular reference to any Pre-emptive Baseline Areas (PBAs) identified as &gt;10 days to hydrocarbon contact. Such information is used to identify response phase PBAs and plan for the activation of SMPs for pre-emptive (i.e. pre-hydrocarbon contact) baseline assessment.</li> </ul>
Pre-emptive Baseline in the event of a spill	Activation of SMPs in order to collect baseline data at sensitive receptor locations with predicted hydrocarbon contact time >10 days (as documented in ANNEX C).
Survey platform suitability and availability	In the event of the SMP activation, suitable survey platforms are available and can support the range of equipment and data collection methodologies to be implemented in nearshore and offshore marine environments.
Trained personnel to implement SMPs suitable and available.	Access to trained personnel and the sampling equipment contracted for scientific monitoring via a dedicated scientific monitoring program standby contract.
Met-ocean conditions	<p>The following met-ocean conditions have been identified to implement SMPs:</p> <ul style="list-style-type: none"> <li>• Waves &lt;1 m for nearshore systems</li> <li>• Waves &lt;1.5 m for offshore systems</li> <li>• Winds &lt;20 knots</li> <li>• Daylight operations only</li> </ul> <p>SMP implementation will be planned and managed according to HSE risk reviews and the met-ocean conditions on a day to day basis by SMP operations.</p>

### 5.5.2 Response planning assumptions

Response Planning Assumptions	
Pre-emptive Baseline Areas (PBAs)	<p>Pre-emptive Baseline Areas (PBAs) identified through the application of defined hydrocarbon impact thresholds during the Quantitative Spill Risk Assessment process and a consideration of the minimum time to contact at receptor locations fall into two categories:</p> <ul style="list-style-type: none"> <li>• PBAs for which baseline data exist or are planned for and data collection may commence pre-PAP (<math>\leq 10</math> days minimum time to contact).</li> <li>• PBAs (&gt; 10 days minimum time to contact) for which baseline data may be collected in the event of an unplanned hydrocarbon release. Response phase</li> </ul>

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	<p>PBAs are prioritised for SMP activities due to vulnerability (i.e. time to contact and environmental sensitivity) to potential impacts from hydrocarbon contact and an identified need to acquire baseline data.</p> <p>Time to hydrocarbon contact of &gt;10 days has been identified as a minimum timeframe within which it is feasible to plan and mobilise applicable SMPs and commence collection of baseline (pre-hydrocarbon contact) data, in the event of an unplanned hydrocarbon release from the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys</i> activity.</p> <p>Pre-emptive Baseline Areas for the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys</i> vessel operations are identified and listed in ANNEX D, Table D-1, noting that no shoreline contact is predicted from both either CS-01 and CS-02. The PBAs together with the situational awareness (from the operational monitoring) are the basis for the response phase SMP planning and implementation.</p>
Pre-Spill	<p>A review of existing baseline data for receptor locations (refer to Annex D) with potential to be contacted by entrained hydrocarbons at environmental thresholds (<math>\leq 100</math> ppb) within <math>\leq 10</math> days, relating to the credible hydrocarbon release for the <i>Goodwyn Alpha Geophysical and Geotechnical Surveys</i> has identified the following:</p> <ul style="list-style-type: none"> <li>• Montebello MP</li> <li>• Rankin Bank</li> <li>• Montebello Islands (including State Marine Park)</li> <li>• Barrow Island (including State Nature Reserves, State Marine Park and Marine Management Area)</li> <li>• Pilbara Islands - Southern Island Group (Serrurier, Thevenard and Bessieres Islands - State Nature Reserves)</li> </ul>
In the Event of a Spill	<p>Receptor locations with &gt;10 days to hydrocarbon contact, as well as the wider area, will be investigated and identified by the SMP team (in the Environment Unit of the CIMT) as the spill event unfolds and as the situational awareness provided by the OMPs permits delineation of the spill affected area (for example, updates to the spill trajectory tracking). The full list is presented in Annex D, based on the PAP credible spill scenario(s) (2-3).</p> <p>To address the initial focus in a response phase SMP planning situation, receptor locations predicted to be contacted between &gt;10 days and 20 days have been identified as follows:</p> <ul style="list-style-type: none"> <li>• Argo-Rowley Terrace MP</li> <li>• Gascoyne MP</li> <li>• Ningaloo MP</li> <li>• Muiron Islands (including MP, Marine Management Area (MMA))</li> <li>• Ningaloo Coast (including World Heritage Area and State Marine Park)</li> <li>• Glomar Shoals</li> </ul> <p>The unfolding spill affected area predictions and confirmation of appropriate baseline data will determine the selection of receptor locations and SMPs to be activated in order to gather pre-emptive (pre-hydrocarbon contact) data. Refer to ANNEX C for further details on scientific monitoring plan implementation and delivery). The timing of SMP activation and mobilisation of the individual SMPs to undertake data collection will be decided and documented by the Woodside SMP team following the process outlined in the SMP Operational Plan.</p> <p>In the event key receptors within geographic locations that are potentially impacted after 10 days following a spill event or commencement of the spill and where adequate and appropriate baseline data are not available, there will be a response phase effort to collect baseline data for the following purposes:</p> <ul style="list-style-type: none"> <li>• Priority will be given to the collection of baseline data for receptors predicted to be within the spill affected area prior to hydrocarbon contact. The process is initiated with the investigation of available baseline and time to hydrocarbon contact (&gt;10</li> </ul>

	<p>days which is sufficient time to mobilise SMP teams and acquire data before hydrocarbon contact).</p> <ul style="list-style-type: none"> <li>Collect baseline data for receptors predicted to be outside the spill affected area so reference datasets for comparative analysis with impacted receptor types can be assessed post-spill.</li> </ul>
Baseline Data	<p>A summary of the spill affected area and receptor locations as defined by the EMBA for the PAP credible spill scenario(s) (Section 2-3) is presented in EP Section 8.7.6.</p> <p>The key receptors at risk by location and corresponding SMPs based on the EMBA for the PAP are presented in ANNEX D, as per credible spill event scenario(s). This matrix maps the receptors at risk with their location and the applicable SMPs that may be triggered in the event of a Level 2 or 3 hydrocarbon release, or any release event with the potential to contact sensitive environmental receptors. Receptor locations and applicable SMPs are colour coded to highlight possible time to contact based on receptor types and locations.</p> <p>The status of baseline studies relevant to the PAP are tracked by Woodside through the maintenance of a Corporate Environment Environmental Baseline Database (managed by the Woodside Biodiversity and Science team), as well as accessing external databases such as the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA)[1] (refer to ANNEX C: Oil Spill Scientific Monitoring Program).</p>

### 5.5.3 Summary – scientific monitoring

The resulting scientific monitoring capability has been assessed against the PAP credible spill scenario(s). The range of techniques provide an ongoing approach to monitoring operations to assess and evaluate the scale and extent of impacts. All known reasonably practicable control measures have been adopted with the cost and organisational complexity of these options determined to be moderate and the overall delivery effectiveness determined to be medium. The SMP’s main objectives can be met, with no additional, alternative or improved control measures providing further benefit.

### 5.5.4 Response planning: need, capability and gap – scientific monitoring

The receptor locations identified in Annex D provide the basis of the SMPs likely to be selected and activated. Once the Woodside SMP Delivery team and the SMP standby contractor have been stood up and the exact nature and scale of the spill becomes known, the SMPs to be activated will be confirmed as per the process set out in the SMP Operational.

#### Scope of SMP Operations in the event of a hydrocarbon spill

Receptor locations of interest for the SMP during the response phase are:

- Argo-Rowley Terrace MP
- Gascoyne MP
- Ningaloo MP
- Muiron Islands (including MP, MMA)
- Ningaloo Coast (including World Heritage Area and State Marine Park)
- Glomar Shoals

Documented baseline studies are available for certain receptor locations (Annex D, Table D-2). The SMP technique; however, would be to deploy SMP teams to maximise the opportunity to collect pre-emptive data at sensitive receptor locations. The exact locations where hydrocarbon contact occurs may be unpredictable, SM01 would be mobilised as a priority to be able to detect hydrocarbons and

[1] <https://biocollect.ala.org.au/imsa#max%3D20%26sort%3DdateCreatedSort>

track the leading edge of the spill to verify where hydrocarbon contact occurs which will assist with where SMP resources are a priority need to obtain pre-emptive baseline data.

The ALARP assessment for the SMP (Section 6.5) considers alternate, additional, and/or improved control measures on each selected response technique.

## 5.5.5 Environmental performance based on need

Table 5-8: Scientific monitoring

Environmental Performance Outcome		Woodside can demonstrate preparedness to stand up the SMP to quantitatively assess and report on the extent, severity, persistence and recovery of sensitive receptors impacted from the spill event		
Control measure		Performance Standard		Measurement Criteria
15	<ul style="list-style-type: none"> <li>Woodside has an established and dedicated SMP team comprising the Biodiversity and Science Team and additional Environment Advisers within the HSEQ Function.</li> </ul>	15.1	SMP team comprises a pool of competent Environment Advisers (stand up personnel) who receive training regarding the SMP, SMP activation and implementation of the SMP on an annual basis	<ul style="list-style-type: none"> <li>Training materials</li> <li>Training attendance registers</li> <li>Process that maps minimum qualification and experience with key SMP role competency and a tracker to manage availability of competent people for the SMP team including redundancy and rostering</li> </ul>
16	<ul style="list-style-type: none"> <li>Woodside have a SMP standby contractor to provide scientific personnel to resource a base capability of one team per SMP (SM01-SM10, see Table C-2, ANNEX C) as detailed in Woodside's SMP standby contractor Implementation Plan, to implement the oil spill scientific monitoring programs. The availability of relevant personnel is reported to Woodside on a monthly basis via a simple report on the base-loading availability of people for each of the SMPs comprising field work for data collection (SMP resourcing report register).</li> <li>In the event of a spill and the SMP is activated, the base-loading availability of scientific personnel will be provided by SMP standby contractor for the individual SMPs and where gaps in resources are identified, SMP standby contractor/Woodside will seek additional personnel (if needed) from other sources including Woodside's Environmental Services Panel.</li> </ul>	16.1	<p>Woodside maintains the capability to mobilise personnel required to conduct scientific monitoring programs SM01 – SM10 (except desktop based SM08):</p> <ul style="list-style-type: none"> <li>Personnel are sourced through the existing standby contract with SMP standby, as detailed within the SMP Implementation Plan.</li> <li>Scientific Monitoring Program Implementation Plan describes the process for standing up and implementing the scientific monitoring programs.</li> <li>SMP team stand up personnel receive training regarding the stand up, activation and implementation of the SMP on an annual basis</li> </ul>	<ul style="list-style-type: none"> <li>HSP Internal Control Environment tracks the quarterly review of the Oil Spill Contracts Master.</li> <li>SMP resource report of personnel availability provided by SMP contractor on monthly basis (SMP resourcing report register).</li> <li>Training materials</li> <li>Training attendance registers</li> <li>Competency criteria for SMP roles</li> <li>SMP annual arrangement testing and reporting</li> </ul>
17	<ul style="list-style-type: none"> <li>Roles and responsibilities for SMP implementation are captured in Table C-1 (Annex C) and the SMP team (as per the organisational structure of the CIMT) is outlined in SMP Operational Plan. Woodside has a defined Crisis and Incident Management structure including Source Control, Operations, Planning and Logistics Sections to manage a loss of well control response.</li> <li>SMP Team structure, interface with SMP standby contractor (standby SMP contractor) and linkage to the CIMT is presented in Figure C-1, ANNEX C</li> <li>Woodside has a defined Command, Control and Coordination structure for Incident and Emergency Management that is based on the AIIMS framework utilised in Australia.</li> <li>Woodside utilises an online Incident Management Information System (IMIS) to coordinate and track key Incident Management Sections. This includes specialist modelling programs, geographic information systems (GIS), as well as communication flows within the Command, Control and Coordination structure.</li> <li>SMP activated via the First Strike Plan.</li> <li>Step by step process to activation of individual SMPs provided in the SMP Operational Plan.</li> <li>All decisions made regarding SMP logged in the online IMIS (SMP team members trained in using Woodside's online Incident Management System)</li> <li>SMP component input to the CIMT Incident Action Plan (IAP) as per the identified CIMT timed sessions and the SMP IAP logged on the online IMIS</li> <li>Woodside Biodiversity and Science Team provide awareness training on the activation and stand-up of the Scientific Monitoring Programme (SMP) for the Environment Advisers in Woodside who are listed on the SMP team on an annual basis.</li> <li>Woodside Biodiversity and Science Team provide awareness training on the activation and stand-up of the Scientific Monitoring Programme (SMP) for the SMP standby contractor.</li> <li>Woodside Biodiversity and Science Team co-ordinates an annual SMP arrangement testing exercise with the SMP standby contractor.</li> </ul>	17.1	Woodside have established an SMP organisational structure and processes to stand up and deliver the SMP.	<ul style="list-style-type: none"> <li>SMP Oil Spill Scientific Monitoring Operational Plan</li> <li>SMP Implementation Plan</li> <li>SMP annual arrangement testing and reporting</li> </ul>
18	<ul style="list-style-type: none"> <li>Chartered and mutual aid vessels.</li> <li>Suitable vessels would be secured from the Woodside support vessels, regional fleet of vessels operated by Woodside and other operators and the regional charter market.</li> <li>Vessel suitability will be guided by the need to be equipped to operate grab samplers, drop camera systems and water sampling</li> </ul>	18.1	<p>Woodside maintains standby SMP capability to mobilise equipment required to conduct scientific monitoring programs SM01 – SM10 (except desktop based SM08):</p> <ul style="list-style-type: none"> <li>Equipment are sourced through the existing standby contract</li> </ul>	<ul style="list-style-type: none"> <li>HSP Internal Control Environment tracks the quarterly review of the Oil Spill Contracts Master.</li> <li>SMP standby monthly resource reports of</li> </ul>



Environmental Performance Outcome		Woodside can demonstrate preparedness to stand up the SMP to quantitatively assess and report on the extent, severity, persistence and recovery of sensitive receptors impacted from the spill event		
Control measure		Performance Standard		Measurement Criteria
	<p>equipment (the individual vessel requirements are outlined in the relevant SMP methodologies (refer to Table C-2, ANNEX C)).</p> <ul style="list-style-type: none"> <li>Nearshore mainland waters could use the same approach as for open water. Smaller vessels may be used where available and appropriate. Suitable vehicles and machinery for onshore access to nearshore SMP locations would be provided by Woodside's transport services contract and sourced from the wider market.</li> <li>Dedicated survey equipment requirements for scientific monitoring range from remote towed video and drop camera systems to capture seabed images of benthic communities to intertidal/onshore surveying tools such as quadrats, theodolites and spades/trowels, cameras and binoculars (specific survey equipment requirements are outlined in the relevant SMP methodologies (refer to Table C-2, ANNEX C)). Equipment would be sourced through the existing SMP standby contract with SMP standby contractor for SMP resources and if additional surge capacity is required this would be available through the other Woodside Environmental Services Panel Contractors and specialist contractors. SMP standby contractor can also address equipment redundancy through either individual or multiple suppliers. MoUs are in place with one marine sampling equipment companies and one analytical laboratory (SMP resourcing report register).</li> <li>Availability of SMP equipment for offshore/onshore scientific monitoring team mobilisation is within one week to ten days of the commencement of a hydrocarbon release. This meets the SMP mobilisation lead time that will support meeting the response objective of 'acquire, where practicable, the environmental baseline data prior to hydrocarbon contact required to support the post-response SMP.</li> </ul>		with SMP standby contractor, as detailed within the SMP Implementation Plan.	<p>equipment availability provided by SMP contractor (SMP resourcing report register).</p> <ul style="list-style-type: none"> <li>SMP annual arrangement testing and reporting</li> </ul>
19	<p>Woodside's SMP approach addresses the pre-PAP acquisition of baseline data for Pre-emptive Baseline Areas (PBAs) with ≤10 days if required following a baseline gap analysis process.</p> <p>Woodside maintains knowledge of Environmental Baseline data through:</p> <ul style="list-style-type: none"> <li>Documentation annual reviews of the Woodside Baseline Environmental Studies Database, and specific activity baseline gap analyses.</li> <li>Accessing external databases such as the Department of Water and Environmental Regulation (WA) Index of Marine Surveys for Assessment (IMSA) (refer to ANNEX C: Oil Spill Scientific Monitoring Program).</li> </ul>	19.1	<ul style="list-style-type: none"> <li>Annual reviews of environmental baseline data</li> <li>PAP specific Pre-emptive Baseline Area baseline gap analysis</li> </ul>	<ul style="list-style-type: none"> <li>Annual review/update of Woodside Baseline Environmental Studies Database</li> <li>Desktop review to assess the environmental baseline study gaps completed prior to EP submission</li> <li>Accessing baseline knowledge via the SMP annual arrangement testing</li> </ul>

Environmental Performance Outcome		SMP plan to acquire response phase monitoring targeting pre-emptive baseline data achieved		
Control measure		Performance Standard		Measurement Criteria
20	<p>Woodside's SMP approach addresses:</p> <ul style="list-style-type: none"> <li>Scientific data acquisition for PBAs &gt;10 days to hydrocarbon contact and activated in the response phase and</li> <li>Transition into post-response SMP monitoring.</li> </ul>	20.1	<p><b>Pre-emptive Baseline Area (PBA) baseline data acquisition in the response phase</b></p> <p>If baseline data gaps are identified for PBAs predicted to have hydrocarbon contact in &gt;10 days, there will be a response phase effort to collect baseline data. Priority in implementing SMPs will be given to receptors where pre-emptive baseline data can be acquired or improved.</p> <p>SMP Team (within the Environment Unit of the CIMT) contribute SMP component of the CIMT Planning Section in development of the IAP.</p>	<ul style="list-style-type: none"> <li>Response SMP plan</li> <li>Woodside's online Incident Management System Records</li> <li>SMP component of the Incident Action Plan.</li> </ul>
		20.2	<p><b>Post Spill contact</b></p> <p>For the receptors contacted by the spill in where baseline data are available, SMPs programs to assess and monitor receptor condition will be implemented post spill (i.e. after the response phase):</p>	<ul style="list-style-type: none"> <li>SMP planning document</li> <li>SMP Decision Log</li> <li>Incident Action Plans (IAPs)</li> </ul>

Environmental Performance Outcome		Implementation of the SMP (response and post-response phases)		
Control measure		Performance Standard		Measurement Criteria
21	<ul style="list-style-type: none"> <li>Scientific monitoring will address quantitative assessment of environmental impacts of a level 2 or 3 spill or any release event with the potential to contact sensitive environmental receptors. The SMP comprises ten targeted environmental monitoring programs.</li> <li>SMP supporting documentation: 1. Oil Spill Scientific Monitoring Operational Plan; (2) SMP Implementation Plan and (3) SMP Process and Methodologies Guideline</li> <li>The Oil Spill Scientific Monitoring Operational Plan details the process of SMP selection, input to the IAP to trigger operational logistic support services. Methodology documents for each of the ten SMPs are accessible detailing equipment, data collection techniques and the specifications required for the survey platform support.</li> <li>The SMP standby contractor holds a Woodside SMP implementation plan detailing activation processes, linkage with the Woodside SMP team and the general principles for the planning and mobilisation of SMPs to deliver the individual SMPs activated. Monthly resourcing report are issued by the SMP standby contractor (SMP resourcing report register. All SMP documents and their status are tracked via SMP document register.</li> </ul>	21.1	<b>Implementation of SM01</b> SM01 will be implemented to assess the presence, quantity and character of hydrocarbons in marine waters during the spill event in nearshore areas	Evidence SM01 has been triggered: <ul style="list-style-type: none"> <li>Documentation as per requirements of the SMP Operational Plan</li> <li>Woodside's online Incident Management System Records.</li> <li>SMP component of the IAP</li> <li>SMP data records from field</li> </ul>
		21.2	<b>Implementation of SM02-SM10</b> SM02-SM10 will be implemented in accordance with the objectives and activation triggers as per Table C-2 of Annex C.	Evidence SMPs have been triggered: <ul style="list-style-type: none"> <li>Documentation as per requirements of the SMP Operational Plan</li> <li>Woodside's online Incident Management System Records.</li> <li>SMP component of the IAP</li> <li>SMP Data records from field</li> </ul>
		21.3	<b>Termination of SMP plans</b> The Scientific Monitoring Program will be terminated in accordance with termination triggers for the SMP's detailed in Table C-2 of Annex C, and the Termination Criteria Decision-tree for Oil Spill Environmental Monitoring (Figure C-3 of Annex C):	Evidence of Termination Criteria triggered: <ul style="list-style-type: none"> <li>Documentation and approval by relevant persons/ organisations to end SMPs for specific receptor types.</li> </ul>

## 5.6 Incident Management System

The Incident Management System (IMS) is both a control measure and a measurement criteria. As a control measure the IMS function is to prompt, facilitate and record the completion of three key response planning processes detailed below. As a measurement criteria the IMS records the evidence of the timeliness of all response actions included in the environmental performance standards and the plans used of the PAP.

As the IMS does not directly remove hydrocarbons spilt into the marine environment there is no direct relationship to the response planning need.

### 5.6.1 Incident action planning

The CIMT will be required to collect and interpret information from the scene of the incident to determine support requirements to the site-based IMT, develop an incident action plan (IAP) and assist the IMT with the execution of that plan. The site-based IC may request the CIMT to complete notifications internally within Woodside, to persons/ organisations and government agencies as required. Depending on the type and scale of the incident either the CIMT DM or IC will be responsible for ensuring the development of the IAP. Incident Action Planning is an ongoing process that involves continual review to confirm that techniques to control the incident are appropriate to the situation at the time.

### 5.6.2 Operational NEBA process

In the event of a response Woodside will confirm that the response techniques adopted at the time of Environment Plan/Oil Pollution Emergency Plan (EP/OPEP) acceptance remain appropriate to reduce the consequences of the spill. This process verifies that there is a continuing net environmental benefit associated with continuing the response technique through the operational NEBA process. This process manages the environmental risks and impacts of response techniques during the spill response, an operational NEBA will be undertaken throughout the response, for each operational period.

The operational NEBA will consider the risks and benefits of conducting and response activity. For example, if vessels are required for access to nearshore or onshore areas, anchoring locations will be selected to minimise disturbance to benthic habitats. Vessel cleanliness would be commensurate with the receiving environment. The operational NEBA will consider the risks and benefits of conducting other response techniques.

The operational NEBA process is also used to terminate a response. Using data from operational and scientific monitoring activities the response to a hydrocarbon spill will be terminated in accordance with the termination process outlined in the Oil Pollution Emergency Arrangements (Australia). In effect the operational NEBA will determine whether there is net environmental benefit to continue response operations.

### 5.6.3 Consultation engagement process

Woodside will engage persons/ organisations during the spill response in accordance with internal standards. This process requires that Woodside will:

- Undertake all required notifications (including government notifications) for persons/ organisations in the region (identified in the First Strike Plan). This includes notification to mariners to communicate navigational hazards introduced through response equipment and personnel.
- In the event of a response, identify and engage with relevant persons/ organisations and continually assess and review.



## 5.6.4 Environmental performance based on need

Table 5-9: Environmental Performance – Incident Management System

Environmental Performance Outcome		To support the effectiveness of all other control measures and monitor/record the performance levels achieved.		
Control measure		Performance Standard		Measurement Criteria (Section 5.7)
22	Operational SIMA	22.1	Confirm that the response techniques adopted at the time of acceptance remain appropriate to reduce the consequences of the spill within 24 hours.	1, 3A
		22.2	Record the evidence and justification for any deviation from the planned response activities.	
		22.3	Record the information and data from operational and scientific monitoring activities used to inform the SIMA.	
23	Stakeholder engagement	23.1	Prompt and record all notifications (including government notifications) for persons/ organisations in the region are made	
		23.2	In the event of a response, identification of relevant persons/ organisations will be re-assessed throughout the response period.	
		23.3	Undertake communications in accordance with: <ul style="list-style-type: none"> <li>• Functional Support Team Guideline – Reputation</li> <li>• External Communication and Continuous Disclosure Procedure</li> <li>• External Stakeholder Engagement Procedure</li> </ul>	
24	Personnel required to support any response	24.1	Action planning is an ongoing process that involves continual review to confirm techniques to control the incident are appropriate to the situation at the time.	1, 3B
		24.2	A duty roster of trained and competent people will be maintained to confirm that minimum manning requirements are met all year round.	3C
		24.3	Immediately activate the IMT with personnel filling one or more of the following roles: <ul style="list-style-type: none"> <li>• CIMT Incident Commander</li> <li>• CIMT Deputy Incident Commander</li> <li>• Operations Section Chief</li> <li>• Planning Section Chief</li> <li>• Logistics Section Chief</li> <li>• Documentation Unit Leader</li> <li>• Safety Officer</li> <li>• Environment Unit Leader</li> <li>• Human Resources Officer</li> <li>• Public Information Officer</li> <li>• Situation Unit Leader</li> <li>• Finance Section Chief</li> <li>• Source Control Section Chief</li> </ul>	1, 2, 3B, 3C, 4
		24.4	Collect and interpret information from the scene of the incident to determine support requirements to the site-based IMT, develop an Incident Action Plan (IAP) and assist with the execution of that plan.	
		24.5	Security & Emergency Management (S&EM) advisors will be integrated into CIMT to monitor performance of all functional roles.	

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<b>Environmental Performance Outcome</b>		To support the effectiveness of all other control measures and monitor/record the performance levels achieved.		
<b>Control measure</b>		<b>Performance Standard</b>		<b>Measurement Criteria (Section 5.7)</b>
		24.6	Continually communicate the status of the spill and support Woodside to determine the most appropriate response by delivering on the responsibilities of their role.	
		24.7	Follow the OPEA, Operational Plans, FSPs, support plans and the IAPs developed.	1, 2, 3A, 4
		24.8	Contribute to Woodside's response in accordance with the aims and objectives set by the Incident Commander.	1, 2, 3B, 3C, 4

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## 5.7 Measurement criteria for all response techniques

Woodside facilitates compliance with environmental performance outcomes and standards through four primary mechanisms. The aforementioned performance tables identify which of these four mechanisms monitors the readiness and records the effectiveness and performance of the control measures adopted.

### 1. The Incident Management System

The Incident Management System (IMS) supports the implementation of the Emergency and Crisis Management Procedure. The IMS provides a near real-time, single source of information for monitoring and recording an incident and measuring the performance of those control measures.

The Emergency and Crisis Management Procedure defines the management framework, including roles and responsibilities, to be applied to any size incident (including hydrocarbon spills). The organisational structure required to manage an incident is developed in a modular fashion and is based on the specific requirements of each incident. The structure can be scaled up or down.

The Incident Action Plan (IAP) process formally documents and communicated the:

- Incident objectives
- Status of assets
- Operational period objectives
- Response techniques (defined during response planning)
- The effectiveness of response techniques.

The information captured in the IMS (including information from personal logs and assigned tasks/close outs) confirms the response techniques implemented remain appropriate to reduce the consequences of the spill. The system also records all information and data that can be used to support the site-based IMT, development and the execution of the IAP.

### 2. The S&EM Competency Dashboard

The S&EM competency dashboard records the number of trained and competent responders that are available across Woodside, and some external providers, to participate in a response.

This number varies dependent on expiry of competency certificates, staff attrition, internal rotations, leave and other absences. As such the Dashboard is designed to identify the minimum manning requirements and to identify sufficient redundancy to cater for the variances listed above.

Figure 5-2 shows the minimum manning numbers for the different hydrocarbon spill response roles and the number of qualified persons against those roles.

Woodside's pool of trained responders is composed of but not limited to personnel from the following organisations:

- Woodside internal
- Australian Marine Oil Spill Centre (AMOSC) core group
- AMOSC
- Oil Spill Response Limited (OSRL)
- Marine Spill Response Corporation (MSRC)
- AMSA
- Woodside contracted workforce

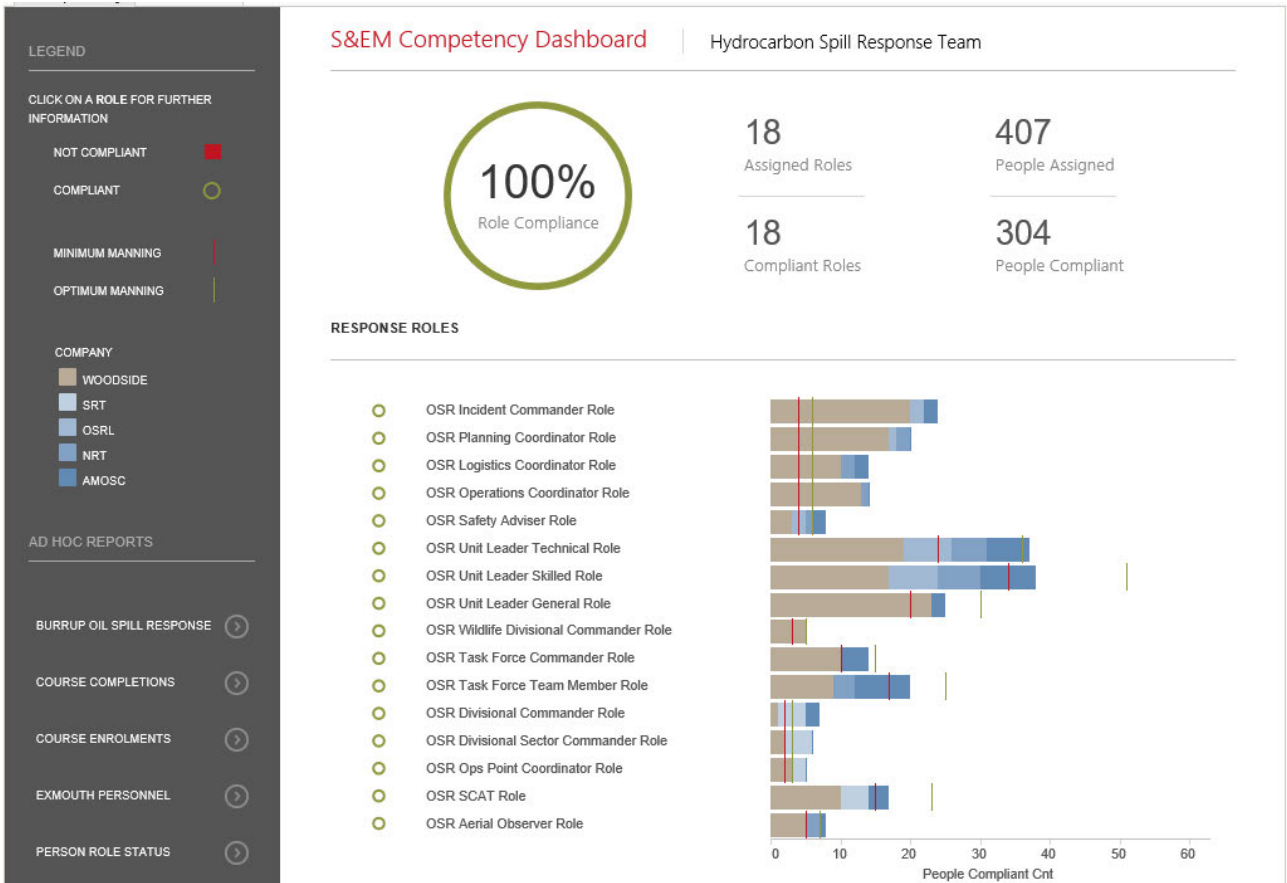


Figure 5-2: Example screen shot of the HSP competency dashboard

The Dashboard is one of Woodside’s key means of monitoring its readiness to respond. It also and shows that Woodside can meet the requirements of the environmental performance standard that relate to filling certain response roles.

Figure 5-3 shows deeper dive into the Ops Point Coordinator role and the training modules required to show competence.

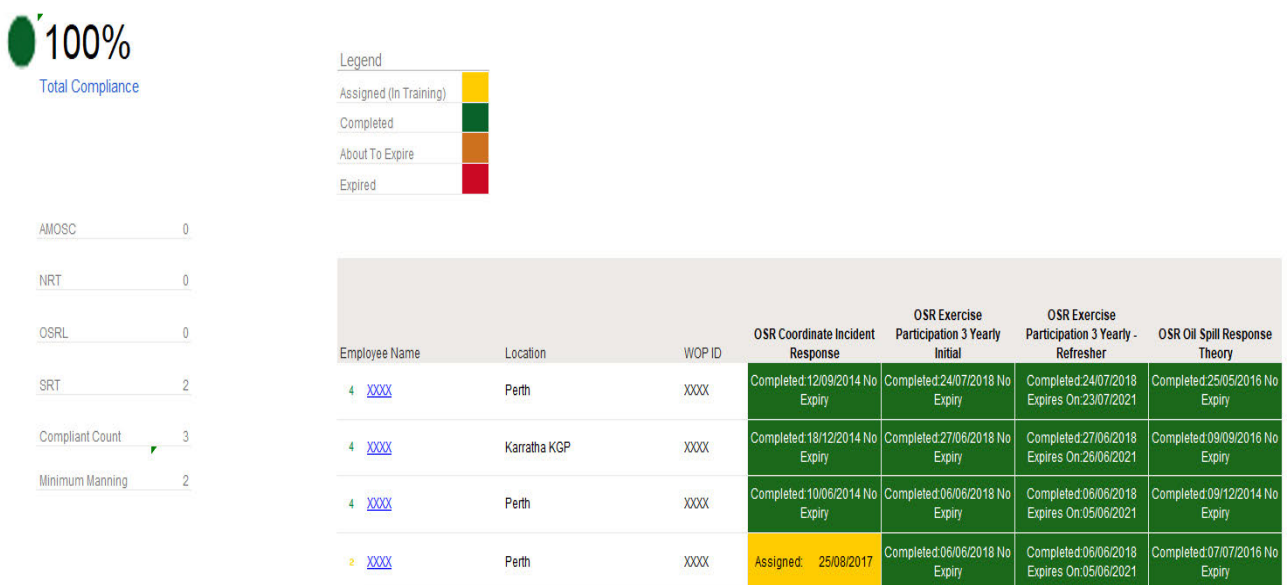


Figure 5-3: Example screen shot for the Ops Point Coordinator role

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### 3. The Hydrocarbon Spill Preparedness ICE Assurance Process

The Hydrocarbon Spill Response Team has developed a Hydrocarbon Spill Preparedness and Response Internal Control Environment (ICE) process to align and feed into the Woodside Management System Assurance process for hydrocarbon spill. The process tracks compliance over four key control areas:

- A. **Plans** – Ensures all plans (including: Oil Pollution Emergency Arrangements, first strike plans, operational plans, support plans and tactical response plans) are current and in line with regulatory and internal requirements.
- B. **Competency** – Ensures the competency dashboard is up to date and there are the minimum competency numbers across CIMT, CMT and hydrocarbon spill response roles. The hydrocarbon spill training plan and exercise schedule, including testing of arrangements is also tracked. The Testing of Arrangements (TOA) register tracks the testing of all hydrocarbon spill response arrangements, key contracts and agreements in place with internal and external parties to ensure compliance.
- C. **Capability** – Tracks and monitors capability that could be required in a hydrocarbon incident, including but not limited to: integrated fleet<sup>5</sup> vessel schedule, dispersant availability, rig/vessels monitoring, equipment stockpiles, tracking buoy locations and the CIMT duty roster.
- D. **Compliance and Assurance** – Ensures all regulator inspection outcomes are actioned and closed out, the global legislation register is up to date and that the key assurance components are tracked and managed. Assurance activities (including audits) conducted on memberships with key Oil Spill Response Organisations (OSROs) including AMOSC and OSRL are also tracked and recorded in the ICE.

The ICE assurance process records how each commitment listed in the performance tables above is managed to ensure ongoing compliance monitoring. The level of compliance can be reviewed in real time and is reported on a monthly basis through the S&EM Function.

The completion of the assurance checks (over and above the ICE process) is also applied via the Woodside Integrated Risk and Compliance System (WiRCs) and subject to the requirements of Woodside's Provide Assurance Procedure.

### 4. The Hydrocarbon Spill Preparedness and Response Procedure

This procedure sets out how to plan and prepare for a liquid hydrocarbon spill to the marine environment. (Note, this procedure does not apply to scenarios relating to gas releases in the marine environment).

This procedure details the:

- Requirement for an Oil Pollution Emergency Plan (OPEP) to be developed, maintained, reviewed, and approved by appropriate regulators (where applicable) including:
  - Defining how spill scenarios are developed on an activity specific basis
  - Developing and maintaining all hydrocarbon spill related plans
  - Ensuring the ongoing maintenance of training and competency for personnel
  - Developing the testing of spill response arrangements
  - Maintaining access to identified equipment and personnel.
- Planning for hydrocarbon spill response preparedness
- Accountabilities for hydrocarbon spill response preparedness
- Spill training requirements

<sup>5</sup> The Integrated fleet consists of vessels from multiple operators that have been contracted to Woodside to undertake a number of duties including hydrocarbon spill response

- Requirements for spill exercising / testing of spill response arrangements
- Spill equipment and services requirements.

The procedure also details the roles and responsibilities of the dedicated Woodside Hydrocarbon Spill Preparedness team. This team is responsible for:

- Assuring that Woodside hydrocarbon spill responders meet competency requirements.
- Establishing the competency requirements, annual training schedule and a training register of trained personnel.
- Establishing and maintaining the total numbers of trained personnel required to provide an effective response to any hydrocarbon spill incident.
- Ensuring equipment and services contracts are maintained
- Establishing OPEPs
- Establishing OPEAs
- Priority response receptor determination
- ALARP determination
- Ensuring compliance and assurance is undertaken in accordance with external and internal requirements

## 6 ALARP EVALUATION

This Section should be read in conjunction with Section 5 which is the capability planned for this activity.

### 6.1 Operational Monitoring – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

#### 6.1.1 Operational Monitoring – Control Measure Options Analysis

##### 6.1.1.1 Alternative Control Measures

Alternative Control Measures considered					
<i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Aerostat (or similar inflatable observation platform) for localised aerial surveillance.	Lead time to Aerostat surveillance is disproportionate to the environmental benefit. The system also provides a very limited field of visibility around the vessel it is deployed from.	Long lead time to access (>10 days). Each system would require an operator to interpret data and direct vessels accordingly. Requires multiple systems for shoreline use.	Purchase cost per system approx. \$300,000.	This option is not adopted as the minimal environmental benefit gained is disproportionate to the cost and complexity of its implementation.	No

##### 6.1.1.2 Additional Control Measures

Additional Control Measures considered					
<i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Additional personnel trained to use systems.	Current arrangement provides an environmental benefit in the availability of trained personnel facilitating access to monitoring data used to inform all other response techniques. No improvement required.	No improvement can be made, all personnel in technical roles e.g. intelligence unit are trained and competent on the software systems. Personnel are trained and exercised regularly. Use of the software and systems forms part of regular work assignments and projects.	Cost for training in-house staff would be approx. \$25,000.	This option is not adopted as the current capability meets the need.	No
Additional satellite tracking buoys to enable greater area coverage.	Increased capability does not provide an environmental benefit compared to the disproportionate cost in having an additional contract in place.	Tracking buoy on location at manned facility, additional needs are met from Woodside owned stocks in King Bay Support Facility (KBSF) and Exmouth or can be provided by service provider.	Cost for an additional satellite tracking buoy would be \$200 per day or \$6,000 to purchase.	This option is not adopted as the current capability meets the need, but additional units are available if required.	No
Additional trained aerial observers.	Current capability meets need. WEL has access to a pool of trained, competent observers at strategic locations for timely and sustainable response. Additional observers are available through current contracts with AMOSC and OSRL.	Current capability meets need. Woodside has a pool of trained, competent observers at strategic locations for timely and sustainable response. Additional observers are available through current contracts with AMOSC and OSRL. Aviation standards and guidelines allow all aircraft crews to be competent for their roles. Woodside maintains a pool of trained and competent aerial observers with various home base locations to be called upon at the time of an incident. Regular audits of oil spill response organisations ensure training and competency is maintained.	Cost for additional trained aerial observers would be \$2,000 per person per day.	This option is not adopted as the current capability meets the need, but additional observers are available via response contractors if required.	No



### 6.1.1.3 Improved Control Measures

#### Improved Control Measures considered

Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility

Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster turnaround time from modelling contractor.	Improved control measure does not provide an environmental benefit compared to the disproportionate cost in having an additional contract in place.	External contractor on CIMT roster to be called as soon as required. However initial information needs to be gathered by CIMT team to request an accurate model. External contractor has person on call to respond from their own location.	Modelling service with a faster activation time would be achieved via membership of an alternative modelling service at an annual cost of \$50,000 for 24hr access plus an initial \$5,000 per modelling run.	This option is not adopted as the minimal environmental benefit gained is disproportionate to the cost and complexity of its implementation.	No
Night time aerial surveillance.	The risk of undertaking the aerial observations at night is disproportionate to the limited environmental benefit. The images would be of low quality and as such the variable is not adopted.	Flights will only occur when deemed safe by the pilot. The risk of night operations is disproportionate to the benefit gained, as images from sensors (IR, UV, etc). will be low quality.  Flight time limitations will be adhered to.	No improvement can be made without risk to personnel health and safety and breaching Woodside's golden rules.	This option is not adopted as the safety considerations outweigh any environmental benefit gained.	No
Faster mobilisation time (for water quality monitoring).	Due to the restriction on accessing the spill location on Day one there is no environmental benefit in having vessels available from day one. The cost of having dedicated equipment and personnel is disproportionate to the environmental benefit. The availability of vessels and personnel meets the response need.  Shortening the timeframes for vessel availability would require dedicated response vessels on standby in KBSF.  The cost and organisational complexity of employing two dedicated response vessels (approximately \$15 M/ year per vessel) is considered disproportionate to the potential environmental benefit to be realised by adopting this delivery options.	Operations are not feasible on day 1 as the hydrocarbon will take time to surface, and volatility has potential to cause health concerns within the first 24 hours of the response.	Cost for purchase of equipment approx. \$200,000. Ongoing costs per annum for cost of hire and pre-positioning for life of asset/activity would be larger than the purchase cost.  Dedicated equipment and personnel, living locally and on short notice to mobilise. The cost would be approx. \$1M per annum, which is disproportionate to the incremental benefit this would provide, assets are already available on day 1. 2 integrated fleet vessels are available from day 1, however these could be tasked with other operations.	This option is not adopted as the area could not be accessed earlier due to safety considerations. Additionally, the cost and complexity of implementation outweighs the benefits.	No

### 6.1.2 Selected Control Measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
  - None selected
- Additional
  - None selected
- Improved
  - None selected

## 6.2 Source Control via Vessel SOPEP – ALARP Assessment

Woodside has based its response planning on the worst-case credible scenario (as described in Section 2.1.1) which is an MDO release via vessel collision. Therefore source control via vessel SOPEP is the sole source control technique considered relevant. There are no other reasonably practical alternative control measures identified.

### 6.2.1 Source Control via Vessel SOPEP – Control Measure Options Analysis

#### 6.2.1.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical alternative control measures identified					

#### 6.2.1.2 Additional Control Measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical additional control measures identified					

#### 6.2.1.3 Improved Control Measures

Improved Control Measures considered <i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical improved control measures identified					

### 6.2.2 Selected control measures

Following review of alternative, additional and improved control measures, the following controls were selected for implementation for the PAP.

- Alternative
  - None selected
- Additional
  - None selected
- Improved
  - None selected



### 6.3 Wildlife Response – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

#### 6.3.1 Existing Capability – Wildlife Response

Woodside’s existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability presented below is displayed as ranges to incorporate operational factors such as weather, crew/vessel/aircraft/vehicle location and duties, survey or classification society inspection requirements, overflight/port/quarantine permits and inspections, crew/pilot duty and fatigue hours, refuelling/re-stocking provisions, and other similar logistic and operational limitation that are beyond Woodside’s direct control.

#### 6.3.2 Wildlife Response - Control Measure Options Analysis

##### 6.3.2.1 Alternative Control Measures

Alternative Control Measures considered <i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Direct contracts with service providers	This option duplicates the capability accessed through AMOSC and OSRL and would compete for the same resources. Does not provide a significant increase in environmental benefit.	These delivery options provide increased effectiveness through more direct communication and control of specialists. However, no significant net benefit is anticipated.	Duplication of capability – already subscribed to through contracts with AMOSC and OSRL	This option is not adopted as the existing capability meets the need.	No

##### 6.3.2.2 Additional Control Measures

Additional Control Measures considered <i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Additional wildlife treatment systems	<p>The selected delivery options provide access to call-off contracts with selected specialist providers. The agreements allow these resources to be mobilised to meet the required response objectives, commensurate with the progressive nature of environmental impact and the time available to monitor hydrocarbon plume trajectories.</p> <p>Provides response equipment and personnel by Day 3. The additional cost in having a dedicated oiled wildlife response (equipment and personnel) in place is disproportionate to environmental benefit.</p> <p>These selected delivery options provide capacity to carry out an oiled wildlife response if contact is predicted; and to scale up the response if required to treat widespread contamination.</p> <p>Current capability meets the needs required and there is no additional environmental benefit in adopting the improvements.</p>	<p>Although hydrocarbon contact above wildlife response threshold concentrations (&gt;10 g/m<sup>2</sup>) with offshore waters is expected from day one (CS-01), given the low likelihood of such an event occurring and that the current capability meets the need, the cost of implementing measures to reduce the mobilisation time is considered disproportionate to the benefit. Additionally, the remote offshore location of the release site, with an earliest impact on day 12, provides sufficient opportunity for the ongoing monitoring and surveillance operations to inform the scale of the response.</p> <p>Numbers of oiled wildlife are expected to be low in the remote offshore setting of the oiled wildlife response, given the distance from known aggregation areas.</p> <p>Oiled wildlife response capacity would be addressed for open Commonwealth waters through the AMOSC arrangements, as informed by operational monitoring.</p> <p>The cost and organisational complexity of this approach is moderate, and the overall delivery effectiveness is high.</p>	Additional wildlife response resources could total A\$1,700 per operational site per day.	This option is not adopted as the existing capability meets the need.	No

Additional trained wildlife responders	Numbers of oiled wildlife are expected to be low in the remote offshore setting of the oiled wildlife response, given the distance from known aggregation areas.  The potential environmental benefit of training additional personnel is expected to be low.	Current numbers meet the needs required and additional personnel are available through existing contracts with oil spill response organisations and environmental panel contractors.  Additional equipment and facilities would be required to support ongoing response, depending on the scale of the event and the impact to wildlife and maybe sourced via existing contracts with OSROs. Materials for holding facilities, portable pools, enclosures and rehabilitation areas would be sourced as required.	Additional wildlife response personnel cost A\$2,000 per person per day	This option is not adopted as the existing capability meets the need.	<b>No</b>
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### 6.3.2.3 Improved Control Measures

Improved Control Measures considered					
<i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster mobilisation time for wildlife response	Response time is limited by specialist personnel mobilisation time. Current timing is sufficient for expected first shoreline contact.  This control measure provides increased effectiveness through faster mobilisation of specialists. However, no significant net environmental benefit is expected due to shoreline stranding times.	Pre-positioning vessels or equipment would reduce mobilisation time for oiled wildlife response activities. However, given the effectiveness of an oiled wildlife response is expected to be low, an earlier response would provide a marginal increase in environmental benefit.	Wildlife response packages to preposition at vulnerable sites identified through the deterministic modelling cost A\$700 per package per day.  The cost of having dedicated equipment and personnel available to respond faster is considered disproportionate to the environmental benefit.	This option is not adopted as the existing capability meets the need.	<b>No</b>

### 6.3.3 Selected control measures

Following review of alternative, additional and improved control measures, the following controls were selected for implementation for the PAP.

- Alternative
  - None selected
- Additional
  - None selected
- Improved
  - None selected



## 6.4 Waste Management – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

### 6.4.1 Existing Capability – Waste Management

Woodside's existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability presented below is displayed as ranges to incorporate operational factors such as weather, crew/vessel/aircraft/vehicle location and duties, survey or classification society inspection requirements, overflight/port/quarantine permits and inspections, crew/pilot duty and fatigue hours, refuelling/re-stocking provisions, and other similar logistic and operational limitation that are beyond Woodside's direct control.

### 6.4.2 Waste Management - Control Measure Options Analysis

#### 6.4.2.1 Alternative Control Measures

Alternative Control Measures considered					
<i>Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical alternative control measures identified					

#### 6.4.2.2 Additional Control Measures

Additional Control Measures considered					
<i>Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Increased waste storage capability	The procurement of waste storage equipment options on the day of the event will allow immediate response and storage of collected waste. The environmental benefit of immediate waste storage is to reduce ecological consequence by safely securing waste, allowing continuous response operations to occur.	Access to Veolia's storage options provides the resources required to store and transport sufficient waste to meet the need. Access to waste contractors existing facilities enables waste to be stockpiled and gradually processed within the regional waste handling facilities. Additional temporary storage equipment is available through existing contract and arrangements with OSRL. Existing arrangements meet identified need for the PAP.	Cost for increased waste disposal capability would be approx. A\$1,300 per m <sup>3</sup> .  Cost for increased onshore temporary waste storage capability would be approx. A\$40 per unit per day.	This option is not adopted as the existing capability meets the need.	No

#### 6.4.2.3 Improved Control Measures

Improved Control Measures considered					
<i>Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Faster response time	The access to Veolia waste storage options provides the resources to store and transport waste, permitting the wastes to be stockpiled and gradually processed within the regional waste handling facilities.  Bulk transport to Veolia's licensed waste management facilities would be undertaken via controlled-waste-licensed vehicles and in accordance with Environmental Protection (Controlled Waste) Regulations 2004.	Woodside already maintains an equipment stockpile in Exmouth to enable shorter response times to incidents. This stockpile includes temporary waste storage equipment.  Woodside has access to stockpiles of waste storage and equipment in Dampier and Exmouth through existing contracts and arrangements.	The incremental benefit of having a dedicated local Woodside owned stockpile of waste equipment and transport is considered minor and cost is considered disproportionate to the benefit gained given predicted shoreline contact times.	This option is not adopted as the existing capability meets the need.	No

	<p>The environmental benefit from successful waste storage will reduce pressure on the treatment and disposal facilities reducing ecological consequences by safely securing waste. In addition, waste storage and transport will allow continuous response operations to occur.</p> <p>This delivery option would increase known available storage, eliminating the risk of additional resources not being available at the time of the event. However, the environmental benefit of Woodside procuring additional waste storage is considered minor as the risk of additional storage not being available at the time of the event is considered low and existing arrangements provide adequate storage to support the response.</p>				
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#### 6.4.3 Selected control measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
  - None selected
- Additional
  - None selected
- Improved
  - None selected



## 6.5 Scientific Monitoring – ALARP Assessment

Alternative, Additional and Improved options have been identified and assessed against the base capability described in Section 5 with those that have been selected for implementation highlighted in green. Items highlighted in red have been considered and rejected on the basis that they are not feasible, the costs are clearly disproportionate to the environmental benefit, and/or the option is not reasonably practical. Control measures where there is not a clear justification for their inclusion or exclusion may be subject to a detailed ALARP assessment.

### 6.5.1 Existing Capability – Scientific Monitoring

Woodside's existing level of capability is based on internal and third-party resources that are available 24 hours, 7 days per week. The capability for scientific monitoring is detailed in Section 5.5.4 and is adequate for the response required for the modelled MDO spill scenarios (CS-01 and CS-02).

### 6.5.2 Scientific Monitoring – Control Measure Options Analysis

#### 6.5.2.1 Alternative Control Measures

Alternative Control Measures considered					
Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Analytical laboratory facilities closer to the likely spill affected area	The environmental consideration of having access to suitable laboratory facilities in Karratha to carry out the hydrocarbon analysis would provide faster turnaround in reporting of results only by a matter days (as per the time to transport samples to laboratories).	SM01 water quality monitoring requires water samples to be transported to NATA-rated laboratories in Perth or over to the East coast. Consider the benefit of laboratory access and transportation times to deliver water samples and complete lab analysis. There is a time lag from collection of water samples to being in receipt of results and confirming hydrocarbon contact to sensitive receptors).	Laboratory facilities and staff available at locations closer to the spill affected area can reduce reporting times only to a moderate degree (days) with associated high costs of maintaining capability do not improve the environmental benefit.	This control measure is not adopted as the costs and complexity are considered disproportionate to any environmental benefit that might be realised.	No
Dedicated contracted SMP vessel (exclusive to Woodside)	Would provide faster mobilisation time of scientific monitoring resources, however, the environmental benefit associated with faster mobilisation time would be minor compared to selected options.	Chartering and equipping additional vessels on standby for scientific monitoring has been considered. The option is reasonably practicable but the sacrifice (charter costs and organisational complexity) is significant, particularly when compared with the anticipated availability of vessels and resources within in the required timeframes. The selected delivery provides capability to meet the scientific monitoring objectives, including collection of pre-emptive data where baseline knowledge gaps are identified for receptor locations where spill predictions of time to contact are >10 days. The effectiveness of this alternative control (weather dependency, availability and survivability) is rated as very low	The cost and organisational complexity of employing a dedicated response vessel is considered disproportionate to the potential environmental benefit by adopting these delivery options.	This control measure is not adopted as the costs and complexity are considered disproportionate to any environmental benefit that might be realised.	No

#### 6.5.2.2 Additional control measures

Additional Control Measures considered					
Additional control measures are evaluated in terms of them reducing an environmental impact or an environmental risk when added to the existing suite of control measures					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
Determine baseline data needs and provide implementation plan in the event of an unplanned	Address resourcing needs to collect post spill (pre-contact) baseline data as spill expands in the event of a loss of well control from the PAP activities.	As part of Woodside's Scientific Monitoring Program the following are considered and incorporated into the spill response approach and the SMP Standby Service contract. <ul style="list-style-type: none"> <li>Woodside rely on existing environmental baseline for receptors which have predicted hydrocarbon contact (above environment threshold) &lt;10 days and</li> </ul>	No cost associated with baseline for SM01.	This control measure is adopted as the costs and complexity are not disproportionate to any environmental benefit that might be realised.	Yes

hydrocarbon release		<p>acquiring pre-emptive data in the event of a loss of well control from the PAP activities based on receptors predicted to have hydrocarbon contact &gt;10 days.</p> <ul style="list-style-type: none"> <li>• Appropriate baseline for key receptors is available for all geographic locations that are potentially impacted &lt;10 days of spill event.</li> <li>• Address resourcing needs to collect pre-emptive baseline as spill expands in the event of a an MDO spill from the PAP activities.</li> <li>• For SM01 pre-emptive baseline is not required as marine water quality is assumed to be pristine.</li> </ul>			
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### 6.5.2.3 Improved Control Measures considered

Improved Control Measures considered					
<i>Improved, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control</i>					
Option considered	Environmental consideration	Feasibility	Approximate Cost	Assessment conclusions	Implemented
No reasonably practical improved control measures identified					

### 6.5.3 Selected Control Measures

Following review of alternative, additional and improved control measures as outlined above, the following controls were selected for implementation for the PAP.

- Alternative
  - None selected
- Additional
  - Determine baseline data needs and provide implementation plan in the event of an unplanned hydrocarbon release
- Improved
  - None selected



## 6.5.4 Operational Plan

Key actions from the Scientific Monitoring Program Operational Plan for implementing the response are outlined in **Table 6-1**.

**Table 6-1: Scientific monitoring program operational plan actions**

Responsibility	Action
<b>Activation</b>	
CIMT Planning (CIMT Planning – Environment Unit)	Mobilises SMP Lead/Manager and SMP Coordinator to the CIMT Planning Section.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager and SMP Coordinator)	Constantly assesses all outputs from OM01, OM02 and OM03 ( <b>Annex B</b> ) to determine receptor locations and receptors at risk. Confirm sensitive receptors likely to be exposed to hydrocarbons, timeframes to specific receptor locations and which SMPs are triggered.  Review baseline data for receptors at risk.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager and SMP Coordinator)	SMP co-ordinator stands up SMP Standby contractor.  Stands up subject matter experts, if required.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager, SMP Coordinator, SMP Standby contractor)	Establish if, and where, pre-contact baseline data acquisition is required.  Determines practicable baseline acquisition program based on predicted timescales to contact and anticipated SMP mobilisation times.  Determines scope for preliminary post-contact surveys during the Response Phase.  Determines which SMP activities are required at each location based on the identified receptor sensitivities.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager, SMP Coordinator, SMP Standby contractor)	If response phase data acquisition is required, stand up the contractor SMP teams for data acquisition and instruct them to standby awaiting further details for mobilisation from the IMT.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager, SMP Coordinator, SMP Standby contractor)	SMP standby contractor, to prepare the Field Implementation Plan.  Prepare and obtain sign-off of the Response Phase SMP work plan and Field Implementation Plan.  Update the IAP.
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager, SMP Coordinator, SMP Standby contractor)	Liaise with CIMT Logistics, and determine the status and availability of aircraft, vessels and road transportation available to transport survey personnel and equipment to point of departure.  Engage with SMP standby contractor, SMP Manager and CIMT Logistics to establish mobilisation plan, secure logistics resources and establish ongoing logistical support operations, including:

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Responsibility	Action
	<ul style="list-style-type: none"> <li>• Vessels, vehicles and other logistics resources</li> <li>• Vessel fit-out specifications (as</li> <li>• Detailed in the Scientific Monitoring Program Operational Plan</li> <li>• Equipment storage and pick-up locations</li> <li>• Personnel pick-up/airport departure locations</li> <li>• Ports of departure</li> <li>• Land based operational centres and forward operations bases, Accommodation and food requirements.</li> </ul>
CIMT Planning (CIMT Planning – Environment Unit)  (SMP Lead/ Manager, SMP Coordinator, SMP Standby contractor)	Confirm communications procedures between Woodside SMP team, SMP standby contractor, SMP Team Leads and Operations Point Coordinator.
<b>Mobilisation</b>	
CIMT Logistics	Engage vessels and vehicles and arrange fitting out as specified by the mobilisation Plan Confirm vessel departure windows and communicate with the service provider’s SMP Manager.  Agree SMP mobilisation timeline and induction procedures with the Division and Sector Command Point(s).
CIMT Logistics	Coordinate with SMP standby contractor to mobilise teams and equipment according to the logistics plan and Sector induction procedures.
SMP Survey Team Leads	SMP Survey Team Leader(s) coordinate on-ground/on-vessel mobilisations and support services with the Sector Command point(s).



### 6.5.5 ALARP and Acceptability Summary

ALARP and Acceptability Summary		
Scientific Monitoring		
<b>ALARP Summary</b>	X	All known reasonably practicable control measures have been adopted
	X	No additional, alternative and improved control measures would provide further benefit
		No reasonably practical additional, alternative, and/or improved control measure exists
	<p>The resulting scientific monitoring capability has been assessed against the credible spill scenarios. The range of techniques provide an ongoing approach to monitoring operations to assess and evaluate the scale and extent of impacts.</p> <p>All known reasonably practicable control measures have been adopted with the cost and organisational complexity of these options determined to be Moderate and the overall delivery effectiveness considered Medium. The SMP's main objectives can be met, with the addition of one alternative control measures to provide further benefit.</p>	
<b>Acceptability Summary</b>	<ul style="list-style-type: none"> <li>• The control measures selected for implementation manage the potential impacts and risks to ALARP.</li> <li>• In the event of a hydrocarbon spill for the PAP, the control measures selected, meet or exceed the requirements of Woodside Management System and industry best-practice.</li> <li>• Scientific Monitoring control and activities are compliant with relevant environmental legislation and regulations, including the EPBC Act.</li> <li>• Throughout the PAP, relevant Australian standards and codes of practice will be followed to evaluate the impacts from a loss of well control.</li> <li>• Consultation undertaken for the PAP did not receive feedback regarding concerns for Scientific Monitoring activities in response to a hydrocarbon spill.</li> <li>• The level of impact and risk to the environment has been considered with regards to the principles of Ecologically Sustainable Development (ESD) and risks and impacts from a range of identified scenarios were assessed in detail. The control measures described consider the conservation of biological and ecological diversity, through both the selection of control measures and the management of their performance. The control measures have been developed to account for credible case scenarios, and uncertainty has not been used as a reason for postponing control measures.</li> </ul>	
<p>On the basis from the impact assessment above and in Section 8.7.6 of the EP Woodside considers the adopted controls discussed manage the impacts and risks associated with implementing scientific monitoring activities to a level that is ALARP and acceptable.</p>		

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## 7 ENVIRONMENTAL RISK ASSESSMENT OF SELECTED RESPONSE TECHNIQUES

The implementation of response techniques may modify the impacts and risks identified in the EP and response activities can introduce additional impacts and risks from response operations themselves. Therefore, it is necessary to complete an assessment to establish that these impacts and risks have been considered and specific measures are put in place to continually review and manage these further impacts and risks to ALARP and Acceptable levels. A simplified assessment process has been used to complete this task which covers the identification, analysis, evaluation and treatment of impacts and risks introduced by responding to the event.

### 7.1 Identification of impacts and risks from implementing response techniques

Each of the control measures can modify the impacts and risks identified in the EP. These impacts and risks have been previously assessed within the scope of the EP. Refer to the EP for details regarding how these risks are being managed. They are not discussed further in this document.

- Atmospheric emissions
- Routine and non-routine discharges
- Physical presence, proximity to other vessels (shipping and fisheries)
- Routine acoustic emissions vessels
- Lighting for night work/navigational safety
- Invasive marine species
- Collision with marine fauna
- Disturbance to Seabed

Additional impacts and risks associated with the control measures not included within the scope of the EP include:

- Vessel operations and anchoring
- Presence of personnel on the shoreline
- Additional stress or injury caused to wildlife
- Secondary contamination from the management of waste

### 7.2 Analysis of impacts and risks from implementing response techniques

The table below compares the adopted control measures for this activity against the environmental values that can be affected when they are implemented.

**Table 7-1: Analysis of risks and impacts**

	Environmental Value						
	Soil and Groundwater	Marine Sediment Quality	Water Quality	Air Quality	Ecosystems/Habitat	Species	Socio-Economic
Operational monitoring		✓	✓	✓	✓	✓	✓
Source control		✓	✓	✓	✓	✓	✓
Oiled wildlife			✓	✓	✓	✓	✓
Scientific monitoring	✓	✓	✓	✓	✓	✓	✓
Waste management	✓	✓	✓	✓	✓	✓	✓

### 7.3 Evaluation of impacts and risks from implementing response techniques

#### Vessel operations and anchoring

During the implementation of response techniques, where water depths allow, it is possible that response vessels will be required to anchor (e.g. during shoreline surveys). The use of vessel anchoring will be minimal and likely to occur when the impacted shoreline is inaccessible via road. Anchoring in the nearshore environment of sensitive receptor locations will have the potential to impact coral reef, seagrass beds and other benthic communities in these areas. Recovery of benthic communities from anchor damage depends on the size of anchor and frequency of anchoring. Impacts would be highly localised (restricted to the footprint of the vessel anchor and chain) and temporary, with full recovery expected.

#### Presence of personnel on the shoreline

Although unlikely to be required for this PAP, if presence of personnel on the shoreline is required during shoreline operations it could potentially result in disturbance to wildlife and habitats. During the implementation of response techniques, it is possible that personnel may have minimal, localised impacts on habitats, wildlife and coastlines. The impacts associated with human presence on shorelines during shoreline surveys may include:

- Damage to vegetation/habitat to gain access to areas of shoreline oiling;
- Damage or disturbance to wildlife during shoreline surveys;
- Removal of surface layers of intertidal sediments (potential habitat depletion); and
- Excessive removal of substrate causing erosion and instability of localised areas of the shoreline.

#### Waste generation

Implementing the selected response techniques will result in the generation of the following waste streams that will require management and disposal:

- Liquids (recovered oil/water mixture), recovered from containment and recovery and shoreline clean-up operations
- Semi-solids/solids (oily solids), collected during containment and recovery and shoreline clean-up operations
- Debris (e.g. seaweed, sand, woods, plastics), collected during containment and recovery and shoreline clean-up operations and oiled wildlife response.

If not managed and disposed of correctly, wastes generated during the response have the potential for secondary contamination similar to that described above, impacts to wildlife through contact with or ingestion of waste materials and contamination risks if not disposed of correctly onshore.

#### **Additional stress or injury caused to wildlife**

Additional stress or injury to wildlife could be caused through the following phases of a response:

- Capturing wildlife
- Transporting wildlife
- Stabilisation of wildlife
- Cleaning and rinsing of oiled wildlife
- Rehabilitation (e.g. diet, cage size, housing density)
- Release of treated wildlife

Inefficient capture techniques have the potential to cause undue stress, exhaustion or injury to wildlife, additionally pre-emptive capture could cause undue stress and impacts to wildlife when there are uncertainties in the forecast trajectory of the spill. During the transportation and stabilisation phases there is the potential for additional thermoregulation stress on captured wildlife. Additionally, during the cleaning process, it is important personnel undertaking the tasks are familiar with the relevant techniques to prevent further injury and the removal of water proofing feathers are managed and mitigated. Finally, during the release phase it's important that wildlife is not released back into a contaminated environment.

### **7.4 Treatment of impacts and risks from implementing response techniques**

In respect of the impacts and risks assessed the following treatment measures have been adopted. It must be recognised that this environmental assessment is seeking to identify how to maintain the level of impact and risks at levels that are ALARP and of an acceptable level rather than exploring further impact and risk reduction. It is for this reason that the treatment measures identified in this assessment will be captured in Operational Plans, Tactical Response Plans, and/or First Strike Plans.

#### **Vessel operations and access in the nearshore environment**

- If vessels are required for access, anchoring locations will be selected to minimise disturbance to benthic primary producer habitats. Where existing fixed anchoring points are not available, locations will be selected to minimise impact to nearshore

benthic environments with a preference for areas of sandy seabed where they can be identified (PS 8.1)

- Shallow draft vessels will be used to access remote shorelines to minimise the impacts associated with seabed disturbance on approach to the shorelines (PS 8.2).

#### **Presence of personnel on the shoreline**

- Shoreline access routes with the least environmental impact identified will be selected by a specialist in SCAT operations (PS 7.3).

#### **Waste generation**

- Teams will segregate liquid and solid wastes at the earliest opportunity (PS 14.1).

#### **Additional stress or injury caused to wildlife**

- Oiled wildlife operations (including hazing) would be implemented with advice and assistance from the Oiled Wildlife Advisor from the DBCA, and in accordance with the processes and methodologies described in the WAOWRP and the relevant regional plan (PS 12.1).

## 8 ALARP CONCLUSION

An analysis of alternative, additional and improved control measures has been undertaken to determine their reasonableness and practicability. The tables in Section 6 document the considerations made in this evaluation. Where the costs of an alternative, additional, or improved control measure have been determined to be clearly disproportionate to the environmental benefit gained from its adoption it has been rejected. Where this is not considered to be the case the control measure has been adopted.

The risks from a hydrocarbon spill have been reduced to ALARP because:

- Woodside has a significant hydrocarbon spill response capability to respond to the WCCS through the control measures identified.
- New and modified impacts and risks associated with implementing response techniques have been considered and will not increase the risks associated with the activity.
- A consideration of alternative, additional, and improved control measures identified any other control measures that delivered proportionate environmental benefit compared to the cost of adoption for this activity ensuring that:
  - All known, reasonably practicable control measures have been adopted.
  - No additional, reasonably practicable alternative and/or improved control measures would provide further environmental benefit.
  - No reasonably practical additional, alternative, and/or improved control measure exists.
- A structured process for considering alternative, additional, and improved control measures was completed for each control measure.
- The evaluation was undertaken based on the outputs of the WCCS so that the capability in place is sufficient for all other scenario from this activity.
- The likelihood of the WCCS spill has been ignored in evaluating what was reasonably practicable.

## 9 ACCEPTABILITY CONCLUSION

Following the ALARP evaluation process, Woodside deems the hydrocarbon spill risks and impacts have been reduced to an acceptable level by meeting all of the following criteria:

- Techniques are consistent with Woodside's processes and relevant internal requirements including policies, culture, processes, standards, structures and systems.
- Levels of risk/ impact are deemed acceptable by relevant persons (external persons/ organisations) and are aligned with the uniqueness of, and/or the level of protection assigned to the environment, its sensitivity to pressures introduced by the activity, and the proximity of activities to sensitive receptors, and have been aligned with Part 3 of the EPBC Act.
- Selected control measures meet requirements of legislation and conventions to which Australia is a signatory (e.g. MARPOL, the World Heritage Convention, the Ramsar Convention, and the Biodiversity Convention etc.). In addition to these, other non-legislative requirements met include:
  - Australian IUCN reserve management principles for Commonwealth marine protected areas and bioregional marine plans.
  - National Water Quality Management Strategy and supporting guidelines for marine water quality).
  - Conditions of approval set under other legislation.
  - National and international requirements for managing pollution from ships.
  - National biosecurity requirements.
- Industry standards, best practices and widely adopted standards and other published materials have been used and referenced when defining acceptable levels. Where these are inconsistent with mandatory/ legislative regulations, explanation has been provided for the proposed deviation. Any deviation produces the same or a better level of environmental performance (or outcome).



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## 11 GLOSSARY AND ABBREVIATIONS

### 11.1 Glossary

Term	Description / Definition
ALARP	Demonstration through reasoned and supported arguments that there are no other practicable options that could reasonably be adopted to reduce risks further.
Availability	The availability of a control measure is the percentage of time that it is capable of performing its function (operating time plus standby time) divided by the total period (whether in service or not). In other words, it is the probability that the control has not failed or is undergoing a maintenance or repair function when it needs to be used.
Control	The means by which risk from events is eliminated or minimised.
Control effectiveness	A measure of how well the control measures perform their required function.
Control measure (risk control measure)	The features that eliminate, prevent, reduce or mitigate the risk to environment associated with PAP.
Credible spill scenario	A spill considered by Woodside as representative of maximum volume and characteristics of a spill that could occur as part of the PAP.
Dependency	The degree of reliance on other systems in order for the control measure to be able to perform its intended function.
Environment that may be affected	The summary of quantitative modelling where the marine environment could be exposed to hydrocarbons levels exceeding hydrocarbon threshold concentrations.
Incident	An event where a release of energy resulted in or had (with) the potential to cause injury, ill health, damage to the environment, damage to equipment or assets or company reputation.
Major Environment Event	The events with potential environment, reputation, social or cultural consequences of category C or higher (as per Woodside's operational risk matrix) which are evaluated against credible worst-case scenarios which may occur when all controls are absent or have failed.
Performance outcome	A statement of the overall goal or outcome to be achieved by a control measure
Performance standard	The parameters against which [risk] controls are assessed to ensure they reduce risk to ALARP.  A statement of the key requirements (indicators) that the control measure has to achieve in order to perform as intended in relation to its functionality, availability, reliability, survivability and dependencies.
Preparedness	Measures taken before an incident in order to improve the effectiveness of a response
Reasonably practicable	... a computation ... made by the owner, in which the quantum of risk is placed on one scale and the sacrifice involved in the measures necessary for averting the risk (whether in money, time or trouble) [showing whether or not] that there is a gross disproportion between them ... made by the owner at a point of time anterior to the accident.  (Judgement: Edwards v National Coal Board [1949])

<b>Term</b>	<b>Description / Definition</b>
Receptors at risk	Physical, biological and social resources identified as at risk from hydrocarbon contact using oil spill modelling predictions.
Receptor areas	Geographically referenced areas such as bays, islands, coastlines and/or protected area (WHA, Commonwealth or State marine reserve or park) containing one or more receptor type.
Receptor Sensitivities	This is a classification scheme to categorise receptor sensitivity to an oil spill. The Environmental Sensitivity Index (ESI) is a numerical classification of the relative sensitivity of a particular environment (particularly different shoreline types) to an oil spill. Refer to the Woodside Oil Pollution Emergency Arrangements (Australia) for more details.
Regulator	NOPSEMA are the Environment Regulator under the Environment Regulations.
Reliability	The probability that at any point in time a control measure will operate correctly for a further specified length of time.
Response technique	The key priorities and objectives to be achieved by the response plan Measures taken in response to an event to reduce or prevent adverse consequences.
Survivability	Whether or not a control measure is able to survive a potentially damaging event is relevant for all control measures that are required to function after an incident has occurred.
Threshold	Hydrocarbon threshold concentrations applied to the risk assessment to evaluate hydrocarbon spills. These are defined as: surface hydrocarbon concentration – $\geq 10 \text{ g/m}^2$ , dissolved – $\geq 100 \text{ ppb}$ and entrained hydrocarbon concentrations – $\geq 500 \text{ ppb}$ .
Zone of Application	The zone in which Woodside may elect to apply dispersant. The zone is determined based on a range of considerations, such as hydrocarbon characteristics, weathering and metocean conditions. The zone is a key consideration in the Net Environmental Benefit Analysis for dispersant use.



## 11.2 Abbreviations

Abbreviation	Meaning
ADIOS	Automated Data Inquiry for Oil Spills
AIIMS	Australasian Inter-Service Incident Management System
ALARP	As low as reasonably practicable
AMOSOC	Australian Marine Oil Spill Centre
AMP	Australian Marine Park
AMSA	Australian Maritime Safety Authority
AUV	Autonomous Underwater Vehicle
BAOAC	Bonn Agreement Oil Appearance Code
BOP	Blowout Preventer
CIMT	Corporate Incident Management Team
COP	Common Operating Picture
cST	Centistokes
DoT	Western Australia Department of Transport
DBCAs	Western Australia Department of Biodiversity, Conservation and Attractions (former Western Australian Department of Parks and Wildlife)
EMBA	Environment that May Be Affected
EMSA	European Maritime Safety Agency
EP	Environment Plan
Environment Regulations	Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009
ESI	Environmental Sensitivity Index
ESD	Ecologically Sustainable Development
ESP	Environmental Services Panel
FPSO	Floating Production Storage Offloading
FSP	First Strike Plan
GIS	Geographic Information System
GPS	Global Positioning System
HSP	Hydrocarbon Spill Preparedness
IAP	Incident Action Plan
IC	Incident Commander
ICE	Internal Control Environment
IMSA	Index of Marine Surveys for Assessment
IMT	Incident Management Team
IPIECA	International Petroleum Industry Environment Conservation Association
ITOPF	International Tanker Owners Pollution Federation
IUCN	International Union for Conservation of Nature
KBSF	King Bay Supply Facility

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Abbreviation	Meaning
KIMC	Karratha Incident Management Centre
KSAT	Kongsberg Satellite
MODU	Mobile Offshore Drilling Unit
MP	Marine Park
MoU	Memorandum of Understanding
NEBA	Net Environmental Benefit Analysis
NOAA	National Oceanic and Atmospheric Administration
NRT	National Response Team
OILMAP	Oil Spill Model and Response System
OPEA	Oil Pollution Emergency Arrangements
OPEP	Oil Pollution Emergency Plan
OPGGSA	Offshore Petroleum and Greenhouse Gas Storage Act
OSRL	Oil Spill Response Limited
OSTM	Oil Spill Trajectory Modelling
OWR	Oiled Wildlife Response
OWRP	Oiled Wildlife Response Plan
PAP	Petroleum Activities Program
PEARLS	People, Environment, Asset, Reputation, Livelihood and Services
PBA	Pre-emptive Baseline Areas
PPA	Priority Protection Area
PPB	Parts per billion
PPM	Parts per million
ROV	Remotely Operated Vehicle(s)
RPA	Response Protection Area
SCAT	Shoreline Contamination Assessment Techniques
SIMAP	Integrated Oil Spill Impact Model System
SSDI	Subsea Dispersant Injection
SFRT	Subsea First Response Toolkit
SMP	Scientific monitoring program
SOP	Standard Operating Procedure
TRP	Tactical Response Plan
UAS	Unmanned Aerial Systems
UAV	Unmanned Aerial Vehicles
WHA	World Heritage Area
Woodside	Woodside Energy Limited
WCC	Woodside Communication Centre
WWCI	Wild Well Control Inc

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Abbreviation	Meaning
WCCS	Worst Case Credible Scenario
ZoA	Zone of Application

## **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 with respect to a vessel collision / MDO spill. The complete list of potential receptor locations within the EMBA within the PAP is included in Section 8.7.6 of the EP.

The locations utilised for the NEBA were limited to the identified RPAs of the PAP identified from modelling as having potential for the following:

- Surface contact (>50 g/m<sup>2</sup>)
- Shoreline accumulation (>100 g/m<sup>2</sup>) at any time
- Entrained contact (>100 ppb) within 14 days

The detailed NEBA assessment outcomes are shown below. The *Goodwyn Alpha Geophysical and Geotechnical Surveys* preoperational NEBAs contains the full assessments.

**Table A-1: NEBA assessment technique recommendations for a MDO spill from vessel collision**

Receptor	Operational Monitoring	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	Well control and intervention
Montebello MP	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes
Montebello Islands MP (including Tryal Rocks)	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes
Ningaloo MP	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes
Gascoyne MP	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes
Barrow Island	Yes	No	N/A	No	No	No	No	No	Yes	No	No	Yes
Barrow Island MP	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes
Muiron Islands (including MMA and Peak Island)	Yes	No	N/A	No	No	No	No	No	Yes	No	No	Yes
Southern Pilbara Islands	Yes	No	N/A	No	No	No	No	No	Yes	No	No	Yes
Ningaloo Coast WHA	Yes	No	N/A	No	No	No	No	No	Yes	No	No	Yes
Penguin Bank	Yes	No	N/A	No	N/A	N/A	N/A	N/A	Yes	No	No	Yes

**Overall assessment**

Sensitive receptor (sites identified in EP)	Operational Monitoring	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	Well control and intervention
Is this response Practicable?	Yes	No	No	No	No	No	No	No	Yes	No	No	Yes
NEBA identifies response potentially of net environmental benefit?	Yes	No	No	No	No	No	No	No	Yes	No	No	Yes

### 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 <sup>6</sup>		Potential duration of impact	Equivalent Woodside Corporate Risk Matrix Consequence Level
Positive	3P	Major	Likely to prevent: <ul style="list-style-type: none"> <li>behavioural impact to biological receptors</li> <li>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.</li> </ul>	Decrease in duration of impact by > 5 years	N/A
	2P	Moderate	Likely to prevent: <ul style="list-style-type: none"> <li>significant impact to a single phase of reproductive cycle of biological receptors</li> <li>detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socio-economic receptors.</li> </ul>	Decrease in duration of impact by 1–5 years	N/A
	1P	Minor	Likely to prevent impacts on: <ul style="list-style-type: none"> <li>significant proportion of population or breeding stages of biological receptors</li> <li>socio-economic receptors such as:                                     <ul style="list-style-type: none"> <li>significant impact to the sensitivity of protective designation; or</li> <li>significant and long-term impact to business/industry.</li> </ul> </li> </ul>	Decrease in duration of impact by several seasons (< 1 year)	N/A
	0	Non-mitigated spill impact	No detectable difference to unmitigated spill scenario.		
Negative	1N	Minor	Likely to result in: <ul style="list-style-type: none"> <li>behavioural impact to biological receptors</li> <li>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.</li> </ul>	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))
	2N	Moderate	Likely to result in: <ul style="list-style-type: none"> <li>significant impact to a single phase of reproductive cycle for biological receptors; or</li> <li>detectable financial impact, either directly (e.g. loss of income) or indirectly (e.g. via public perception), for socio-economic receptors. This level of negative impact is recoverable and unlikely to result in closure of business/industry in the region.</li> </ul>	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: <ul style="list-style-type: none"> <li>significant proportion of population or breeding stages of biological receptors</li> <li>socio-economic receptors resulting in either:                                     <ul style="list-style-type: none"> <li>significant impact to the sensitivity of protective designation; or</li> <li>significant and long-term impact to business/industry.</li> </ul> </li> </ul>	Increase in duration of impact by > 5 years or unrecoverable	Increase in risk by two categories (e.g. Minor (E) to Major (A))

<sup>6</sup> NOTE: 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
<p><b>Operational Monitoring Operational Plan – 01 (OM01)</b></p> <p>Predictive Modelling of Hydrocarbons to Assess Resources at Risk</p>	<p>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.</p> <p>The objectives of OM01 are to:</p> <ul style="list-style-type: none"> <li>• Provide forecasting of the movement and weathering of spilled hydrocarbons</li> <li>• Identify resources that are potentially at risk of contamination</li> <li>• Provide simulations showing the outcome of alternative response options (booming patterns etc.) to inform on-going Net Environmental Benefit Analysis (NEBA) and continually assess the efficacy of available response options in order to reduce risks to ALARP</li> </ul>	<p>OM01 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The criteria for the termination of OM01 are:</p> <ul style="list-style-type: none"> <li>• The hydrocarbon discharge has ceased and no further surface oil is visible</li> <li>• Response activities have ceased</li> <li>• Hydrocarbon spill modelling (as verified by OM02 surveillance observations) predicts no additional natural resources will be impacted</li> </ul>



Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p><b>Operational Monitoring Operational Plan – 02 (OM02)</b></p> <p>Surveillance and reconnaissance to detect hydrocarbons and resources at risk</p>	<p>OM02 aims to provide regular, on-going hydrocarbon spill surveillance throughout a broad region, in the event of a spill.</p> <p>The objectives of OM02 are:</p> <ul style="list-style-type: none"> <li>• Verify spill modelling results and recalibrate spill trajectory models (OM01).</li> <li>• Understand the behaviour, weathering and fate of surface hydrocarbons.</li> <li>• Identify environmental receptors and locations at risk or contaminated by hydrocarbons.</li> <li>• Inform ongoing Net Environmental Benefit Analysis (NEBA) and continually assess the efficacy of available response options in order to reduce risks to ALARP.</li> <li>• 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.</li> </ul>	<p>OM02 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The termination triggers for the OM02 are:</p> <ul style="list-style-type: none"> <li>• 72 hours has elapsed since the last confirmed observation of surface hydrocarbons.</li> <li>• Latest hydrocarbon spill modelling results (OM01) do not predict surface exposures at visible levels.</li> </ul>
<p><b>Operational Monitoring Operational Plan – 03 (OM03)</b></p> <p>Monitoring of hydrocarbon presence, properties, behaviour and weathering in water</p>	<p>OM03 will measure surface, entrained and dissolved hydrocarbons in the water column to inform decision-making for spill response activities.</p> <p>The specific objectives of OM03 are as follows:</p> <ul style="list-style-type: none"> <li>• Detect and monitor for the presence, quantity, properties, behaviour and weathering of surface, entrained and dissolved hydrocarbons.</li> <li>• Verify predictions made by OM01 and observations made by OM02 about the presence and extent of hydrocarbon contamination.</li> </ul> <p>Data collected in OM03 will also be used for the purpose of longer-term water quality monitoring during SM01.</p>	<p>OM03 will be triggered immediately following a level 2/3 hydrocarbon spill.</p>	<p>The criteria for the termination of OM03 are as follows:</p> <ul style="list-style-type: none"> <li>• The hydrocarbon release has ceased.</li> <li>• Response activities have ceased.</li> <li>• Concentrations of hydrocarbons in the water are below available ANZECC/ ARMCANZ (2018) trigger values for 99% species protection.</li> </ul>

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Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p><b>Operational Monitoring Operational Plan – 04 (OM04)</b></p> <p>Pre-emptive assessment of sensitive receptors at risk</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>OM04 would be undertaken in liaison with WA DoT as the control agency once the oil is in State Waters (if a Level 2/3 incident).</p>	<p>Triggers for commencing OM04 include:</p> <ul style="list-style-type: none"> <li>• Contact of a sensitive habitat or shoreline is predicted by OM01, OM02 and/or OM03.</li> <li>• 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).</li> </ul>	<p>The criteria for the termination of OM04 at any given location are:</p> <ul style="list-style-type: none"> <li>• Locations predicted to be contacted by hydrocarbons have been contacted.</li> <li>• The location has not been contacted by hydrocarbons and is no longer predicted to be contacted by hydrocarbons (resources should be reallocated as appropriate).</li> </ul>

Operational Monitoring Operational Plan	Objectives	Activation triggers	Termination criteria
<p><b>Operational monitoring operational plan – 05 (OM05)</b></p> <p>Monitoring of contaminated resources</p>	<p>OM05 aims to implement surveys to assess the condition of wildlife and habitats contacted by hydrocarbons at sensitive habitat and shoreline locations.</p> <p>The primary objectives of OM05 are:</p> <ul style="list-style-type: none"> <li>Record evidence of oiled wildlife (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.</li> </ul> <p>Indirectly, the information collected by OM05 may also support the assessment of environmental impacts, as determined through subsequent SMPs.</p> <p>OM05 would be undertaken in liaison with WA DoT as the control agency once the oil is in State Waters (if a Level 2/3 incident).</p>	<p>OM05 will be triggered when a sensitive habitat or shoreline is predicted to be contacted by hydrocarbons by OM01, OM02 and/or OM03.</p>	<p>The criteria for the termination of OM05 at any given location are:</p> <ul style="list-style-type: none"> <li>No additional response or clean-up of wildlife or habitats is predicted.</li> <li>Spill response and clean-up activities have ceased.</li> </ul> <p>OM05 survey sites established at sensitive habitat and shoreline locations will continue to be monitored during SM02.</p> <p>The formal transition from OM05 to SM02 will begin on cessation of spill response and clean-up activities.</p>

## 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 decision-making 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 SMP Standby 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 SMP Standby 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.

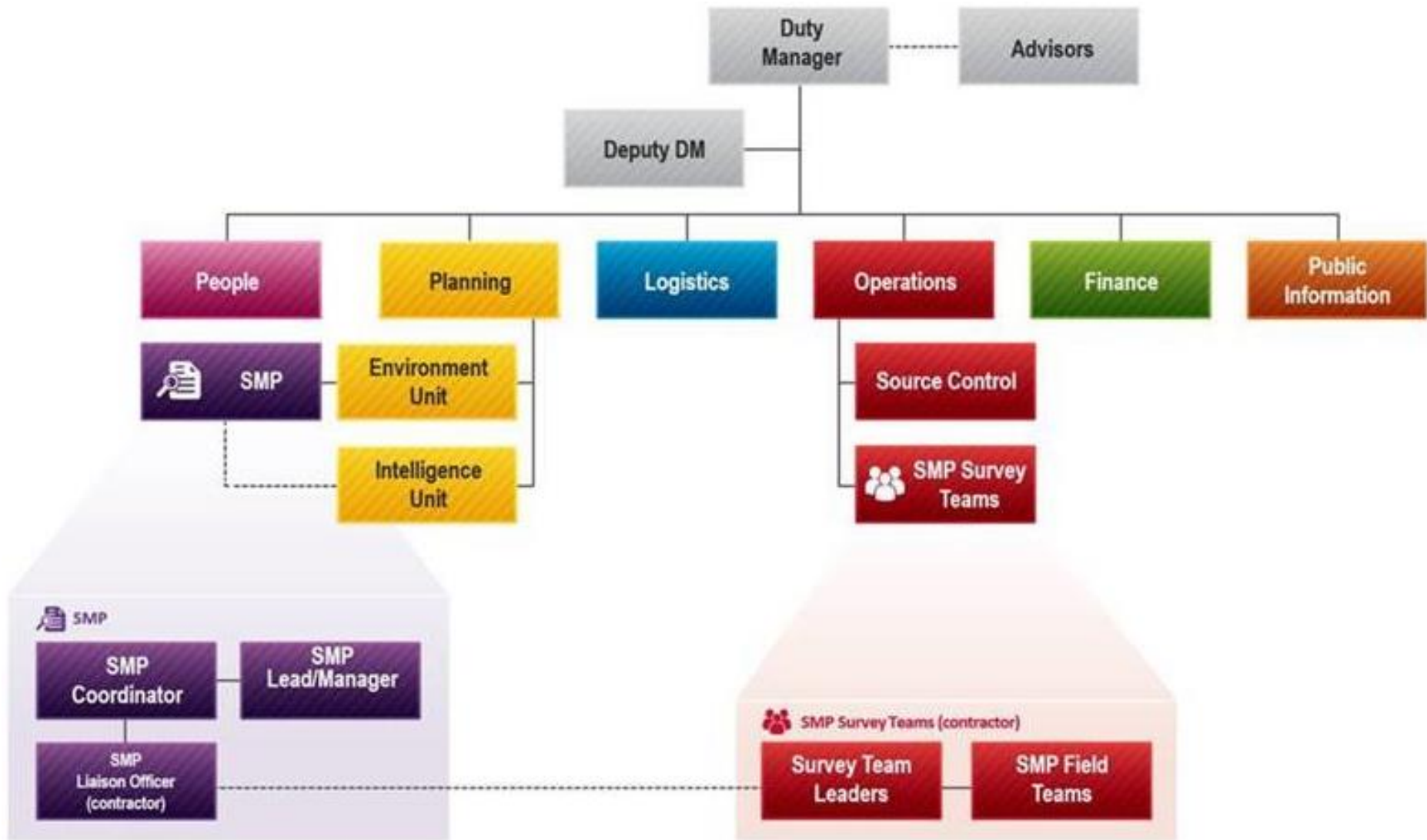


**Table C-1: Woodside and Environmental Service Provider – Oil Spill Scientific Monitoring Program Delivery Team Key Roles and Responsibilities**

Role	Location	Responsibility
<b>Woodside Roles</b>		
SMP Lead/ Manager	Onshore	<ul style="list-style-type: none"> <li>• Approves activated the SMPs based on operational monitoring data provided by the Planning Section</li> <li>• Provides advice to the CIMT in relation to scientific monitoring</li> <li>• Provides technical advice regarding the implementation of scientific monitoring</li> <li>• Approves detailed sampling plans prepared for SMPs</li> <li>• Directs liaison between statutory authorities, advisors and government agencies in relation to SMPs.</li> </ul>
SMP Co-Ordinator	Onshore	<ul style="list-style-type: none"> <li>• Activates the SMPs based on operational monitoring data provided by the Planning Section</li> <li>• Sits in the Planning Section of the CIMT.</li> <li>• Liaises with other CIMT Sections 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 SMP Lead/Manager to the Environmental Service Provider</li> <li>• Manages the Environmental Service Provider's implementation of the SMPs</li> <li>• Liaises with the Environmental Service Provider on delivery of the SMPs</li> <li>• Arranges all contractual matters, on behalf of Woodside, associated with the Environmental Service Provider's delivery of the SMPs.</li> </ul>
<b>Environmental Service Provider Roles</b>		
SMP Standby Contractor – SMP Duty Manager/ Project Manager (SMP Liaison Officer)	Onshore	<ul style="list-style-type: none"> <li>• Coordinates the delivery of the SMPs</li> <li>• Provides costings, schedule and progress updates for delivery of SMPs</li> <li>• Determines the structure of the Environmental Service Provider's team to necessitate delivery of the SMPs</li> <li>• Verifies that HSE Plans, detailed sampling plans and other relevant deliverables are developed and implemented for delivery of the SMPs</li> <li>• Directs field teams to deliver SMPs</li> <li>• Arranges all contractual matters, on behalf of Environmental Service Provider, associated with the delivery of the SMPs to Woodside</li> <li>• Manages sub-consultant delivery to Woodside</li> <li>• Provides required personnel and equipment to deliver the SMPs.</li> </ul>
SMP Field Teams	Offshore – Monitoring Locations	<ul style="list-style-type: none"> <li>• Delivers the SMPs in the field consistent with the detailed sampling plans and HSE requirements, within time and budget.</li> <li>• Early communication of time, budget, HSE risks associated with delivery of the SMPs to the Environmental Service Provider – Project Manager</li> <li>• Provides start up, progress and termination updates to the Environmental Service Provider – Project Manager (will be led in-field by a party chief).</li> </ul>

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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
<b>Scientific monitoring program 1 (SM01)</b> <b>Assessment of Hydrocarbons in Marine Waters</b>	<p>SM01 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine waters following the spill and the response.</p> <p>The specific objectives of SM01 are as follows:</p> <ul style="list-style-type: none"> <li>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</li> <li>Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs.</li> </ul>	<p>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</p>	<p>SM01 will be terminated when:</p> <ul style="list-style-type: none"> <li>Operational monitoring data relating to observations and / or measurements of hydrocarbons on and in water have been compiled, analysed and reported; and</li> <li>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.</li> </ul> <p>SMP monitoring of sensitive receptor sites:</p> <ul style="list-style-type: none"> <li>Concentrations of hydrocarbons in water samples are below NOPSEMA guidance note (2019 <sup>7</sup>) concentrations of 1 g/m<sup>2</sup> for floating, 10 ppb for entrained and dissolved; and</li> <li>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.</li> </ul>
<b>Scientific monitoring program 2 (SM02)</b> <b>Assessment of the Presence, Quantity and Character of Hydrocarbons in Marine Sediments</b>	<p>SM02 will detect and monitor the presence, extent, persistence and properties of hydrocarbons in marine sediments following the spill and the response.</p> <p>The specific objectives of SM02 are as follows:</p> <ul style="list-style-type: none"> <li>Determine the extent, severity and persistence of hydrocarbons in marine sediments across selected sites where hydrocarbons were observed or recorded during operational monitoring; and</li> <li>Provide information that may be used to interpret potential cause and effect drivers for environmental impacts recorded for sensitive receptors monitored under other SMPs.</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>Response activities have ceased; and</li> <li>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/m<sup>2</sup> surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation).</li> </ul>	<p>SM02 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> <li>Concentrations of hydrocarbons in sediment samples are below ANZECC/ ARMCANZ (2013 <sup>8</sup>) sediment quality guideline values (SQGVs) for biological disturbance; and</li> <li>Details of the extent, severity and persistence of hydrocarbons from concentrations recorded in sediments have been documented.</li> </ul>
<b>Scientific monitoring program 3 (SM03)</b> <b>Assessment of Impacts and Recovery of Subtidal and Intertidal Benthos</b>	<p>The objectives of SM03 are:</p> <ul style="list-style-type: none"> <li>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</li> <li>Determine the impact of the hydrocarbon spill and subsequent recovery (including impacts associated with the implementation of response options).</li> </ul> <p>Categories of intertidal and subtidal habitats that may be monitored include:</p> <ul style="list-style-type: none"> <li>Coral reefs</li> <li>Seagrass</li> <li>Macro-algae</li> <li>Filter-feeders</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>As part of a pre-emptive assessment of PBAs of receptor locations identified by time to hydrocarbon contact &gt;10 days, to target receptors and sites where it is possible to acquire pre-hydrocarbon contact baseline; and</li> <li>Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m<sup>2</sup> surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation) for subtidal and intertidal benthic habitat.</li> </ul>	<p>SM03 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> <li>Overall impacts to benthic habitats from hydrocarbon exposure have been quantified.</li> <li>Recovery of impacted benthic habitats has been evaluated.</li> <li>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.</li> </ul>

<sup>7</sup> NOPSEMA (2019) Bulletin #1 – Oil spill modelling – April 2019, <https://www.nopsema.gov.au/assets/Bulletins/A652993.pdf>

<sup>8</sup> 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
	SM03 will be supported by sediment contamination records (SM02) and characteristics of the spill derived from OMPs.		
<b>Scientific monitoring program 4 (SM04)</b> <b>Assessment of Impacts and Recovery of Mangroves / Saltmarsh</b>	<p>The objectives of SM04 are:</p> <ul style="list-style-type: none"> <li>Characterize the status of mangroves (and associated salt marsh habitat) at shorelines exposed/contacted by spilled hydrocarbons;</li> <li>Quantify any impacts to species (abundance and density) and mangrove/saltmarsh community structure; and</li> <li>Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options).</li> </ul> <p>SM03 will be supported by sediment sampling undertaken in SM02 and characteristics of the spill derived from OMPs.</p>	<p>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:</p> <ul style="list-style-type: none"> <li>As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact &gt;10 days; and</li> <li>Operational monitoring identified shoreline potential contact of hydrocarbons (at or above 0.5 g/m<sup>2</sup> surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation) for mangrove/saltmarsh habitat.</li> </ul>	<p>SM04 will be terminated once pre-spill condition is reached and agreed upon as per the SMP termination criteria process and include consideration of:</p> <ul style="list-style-type: none"> <li>Impacts to mangrove and saltmarsh habitat from hydrocarbon exposure have been quantified.</li> <li>Recovery of impacted mangrove/saltmarsh habitat has been evaluated.</li> <li>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.</li> </ul>
<b>Scientific monitoring program 5 (SM05)</b> <b>Assessment of Impacts and Recovery of Seabird and Shorebird Populations</b>	<p>The Objectives of SM05 are to:</p> <ul style="list-style-type: none"> <li>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</li> <li>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.</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact &gt;10 days;</li> <li>Operational monitoring predicts shoreline contact of hydrocarbons (at or above 0.5 g/m<sup>2</sup> surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation) at important bird colonies / staging sites / important coastal wetland locations; or</li> <li>Records of dead, oiled or injured bird species made during the hydrocarbon spill or response.</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>Impacts to seabird and shorebird populations from hydrocarbon exposure have been quantified.</li> <li>Recovery of impacted seabird and shorebird populations has been evaluated.</li> <li>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.</li> </ul>
<b>Scientific monitoring program 6 (SM06)</b> <b>Assessment of Impacts and Recovery of Nesting Marine Turtle Populations</b>	<p>The objectives of SM06 are to:</p> <ul style="list-style-type: none"> <li>To quantify impacts of hydrocarbon exposure or contact on marine turtle nesting populations (including impacts associated with the implementation of response options);</li> <li>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</li> <li>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).</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact &gt;10 days;</li> <li>Predicted shoreline contact of hydrocarbons (at or above 0.5 g/m<sup>2</sup> surface, 5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation) at known marine turtle rookery locations; or</li> <li>Records of dead, oiled or injured marine turtle species made during the hydrocarbon spill or response.</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>Impacts to nesting marine turtle populations from hydrocarbon exposure have been quantified.</li> <li>Recovery of impacted nesting marine turtle populations has been evaluated.</li> <li>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.</li> </ul>
<b>Scientific monitoring program 7 (SM07)</b>	The objectives of SM07 are to:	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	SM07 will be terminated once it is agreed that the receptor has returned to pre-spill condition. The



Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
<b>Assessment of Impacts to Pinniped Colonies including Haul-out Site Populations</b>	<ul style="list-style-type: none"> <li>Quantify impacts on pinniped colonies and haul-out sites as a result of hydrocarbon exposure/contact.</li> <li>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.</li> </ul>	receptors and implemented if operational monitoring has: <ul style="list-style-type: none"> <li>As part of a pre-emptive assessment of receptor locations identified by time to hydrocarbon contact &gt;10 days;</li> <li>Identified shoreline contact of hydrocarbons ((at or above 0.5 g/m<sup>2</sup> surface, ≥5 ppb for entrained/dissolved hydrocarbons and ≥1 g/m<sup>2</sup> for shoreline accumulation) at known pinniped colony or haul-out site(s) (i.e. most northern site is the Houtman Abrolhos Islands); or</li> <li>Records of dead, oiled or injured pinniped species made during the hydrocarbon spill or response.</li> </ul>	SMP termination criteria process will be followed and include consideration of: <ul style="list-style-type: none"> <li>Impacts to pinniped populations from hydrocarbon exposure have been quantified.</li> <li>Recovery of pinniped populations has been evaluated.</li> <li>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.</li> </ul>
<b>Scientific monitoring program 8 (SM08)</b> <b>Desk-Based Assessment of Impacts to Other Non-Avian Marine Megafauna</b>	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: <ul style="list-style-type: none"> <li>Cetaceans;</li> <li>Dugongs;</li> <li>Whale sharks and other shark and ray populations;</li> <li>Sea snakes; and</li> <li>Crocodiles.</li> </ul> The desk-based assessment will include population analysis to infer potential impacts to marine megafauna species populations.	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. <ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Scientific monitoring program 9 (SM09)</b> <b>Assessment of Impacts and Recovery of Marine Fish associated with SM03 habitats</b>	The objectives of SM09 are: <ul style="list-style-type: none"> <li>Characterise the status of resident fish populations associated with habitats monitored in SM03 exposed/contacted by spilled hydrocarbons;</li> <li>Quantify any impacts to species (abundance, richness and density) and resident fish population structure (representative functional trophic groups); and</li> <li>Determine and monitor the impact of the hydrocarbon spill and potential subsequent recovery (including impacts associated with the implementation of response options).</li> </ul>	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 <ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Scientific monitoring program 10 (SM10)</b> <b>SM10 - Assessment of physiological impacts important fish and shellfish species (fish health and seafood quality/safety) and recovery</b>	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: <ul style="list-style-type: none"> <li>Liver Detoxification Enzymes (ethoxyresorufin-O-deethylase (EROD) activity)</li> <li>PAH Biliary Metabolites</li> <li>Oxidative DNA Damage</li> <li>Serum SDH</li> <li>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.</li> </ul>	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: <ul style="list-style-type: none"> <li>The hydrocarbon spill will or has intersected with active commercial fisheries or aquaculture activities.</li> <li>Commercially targeted finfish and/or shellfish mortality has been observed/recorded.</li> <li>Commercial fishing or aquaculture areas have been exposed to hydrocarbons (≥0.5 g/m<sup>2</sup> surface and ≥5 ppb for entrained/dissolved hydrocarbons); and</li> </ul>	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: <ul style="list-style-type: none"> <li>Physiological impacts to important commercial fish and shellfish species from hydrocarbon exposure have been quantified.</li> <li>Recovery of important commercial fish and shellfish species from hydrocarbon exposure has been evaluated.</li> <li>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.</li> </ul>

Scientific monitoring Program (SMP)	Objectives	Activation Triggers	Termination Criteria
	<ul style="list-style-type: none"> <li>Seafood tainting may be included (where appropriate) using applicable sensory tests to objectively assess targeted finfish and shellfish species for hydrocarbon contamination.</li> </ul> <p>Results will be used to make inferences on the health of commercial fisheries and the potential magnitude of impacts to fishing industries.</p>	<ul style="list-style-type: none"> <li>Taste, odour or appearance of seafood presenting a potential human health risk is observed.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

## 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 so the full range of eventualities relating to the environmental, socio-economic 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), CMRs, 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) 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 what SMPs are activated and 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, CMRs 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). Stakeholder identification, planning and engagement will be managed by Woodside's Public Information Functional Support Team (FST) and follow the stakeholder management FST. 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 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 WHA, CMRs, 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).



# SMP ACTIVATION & IMPLEMENTATION DECISION PROCESS

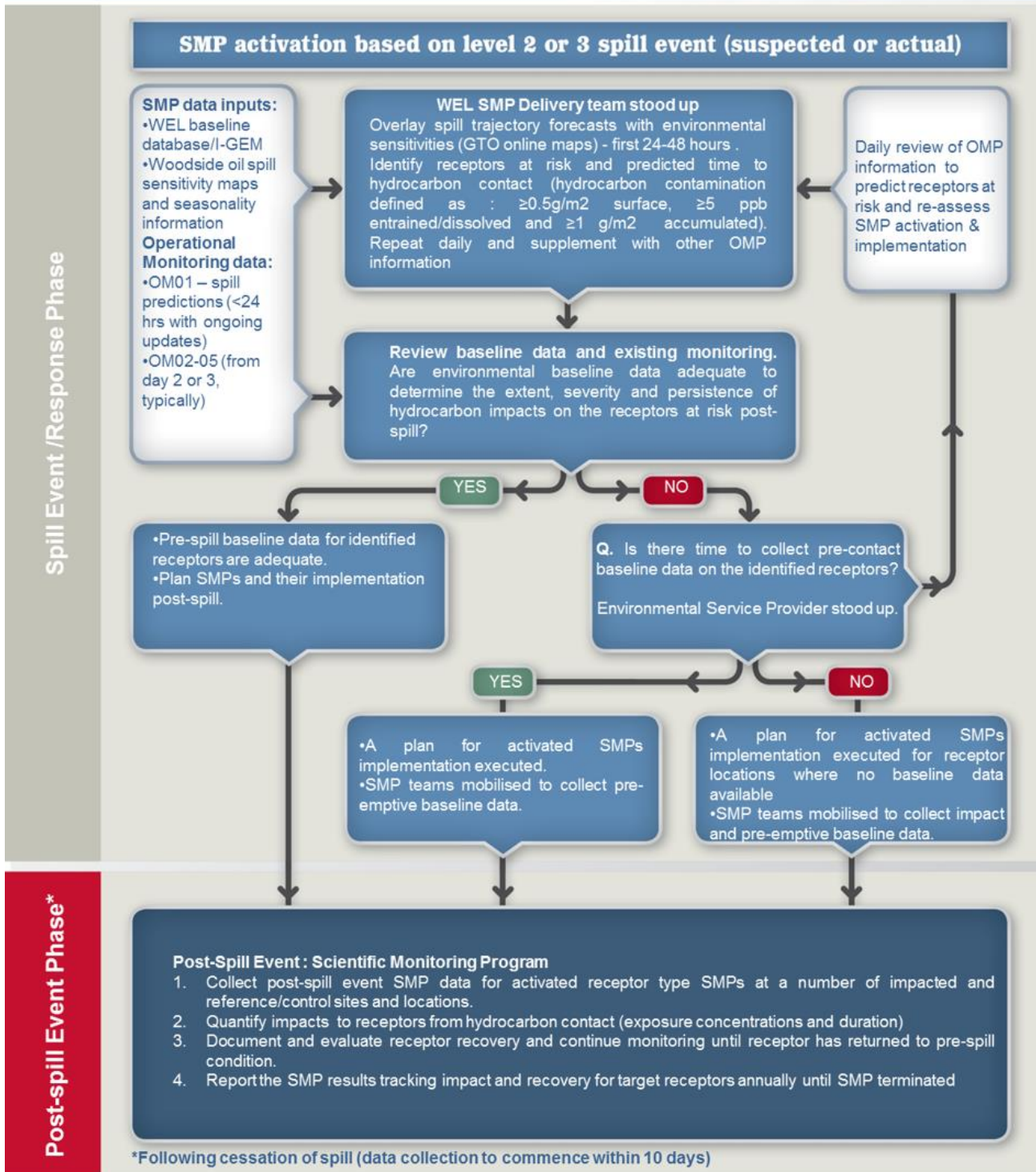


Figure C-2: Activation and Implementation Decision-tree for Oil Spill Environmental Monitoring

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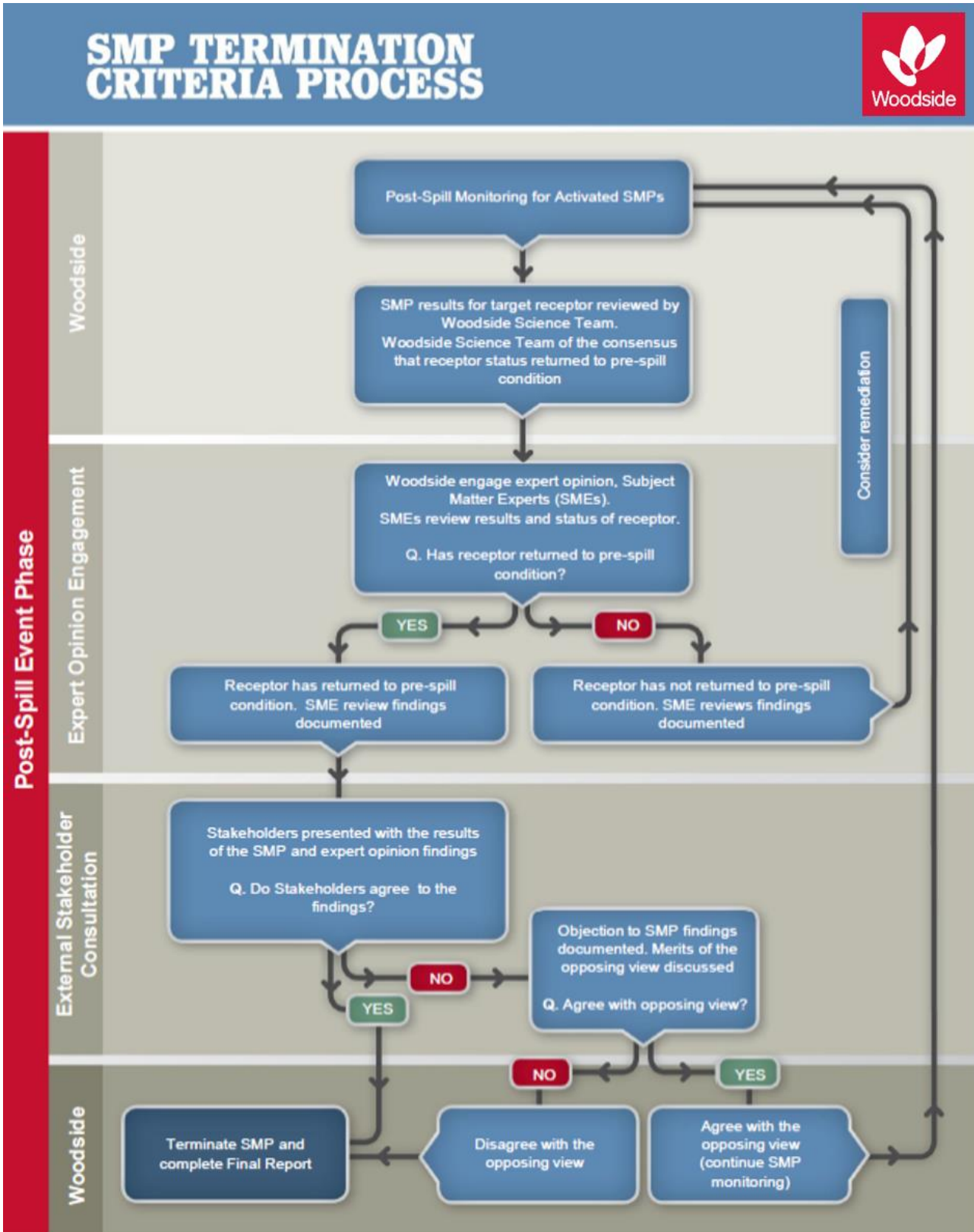


Figure C-3: Termination Criteria Decision-tree for Oil Spill Environmental Monitoring

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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 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 non-governmental 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)<sup>9</sup> in 2020. The Index of Marine Surveys for Assessments (IMSA) is an online portal for 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 Pre-emptive 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.

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

## **ANNEX D: 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 (CS-01 and CS-02)**

Receptors to be Monitored	Receptor Areas - Potential Impact and Reference Scientific Monitoring Sites (marked X)																																																
	Applicable SMP	Kimberley AMP	Agro-Rowley Terrace AMP	Montebello AMP	Dampier AMP	Carnarvon Canyon AMP	Ningaloo AMP	Gascoyne AMP	Shark Bay Open Ocean (including AMP)	Abrilhos AMP	Jurien AMP	Two Rocks AMP	Perth Canyon AMP	Geopraphe AMP	South-west Corner AMP	Ashmore Reef and AMP	Seringapatam Reef	Scott Reef (North and South)	Mermaid Reef and AMP	Clerke Reef and State Marine Park	Imperieuse Reef and State Marine Park	Rankin Bank	Glomar Shoals	Rowley Shoals (including Sate Marine Park)	Fantome Shoal	Adele Island	Lacepede Islands	Montebello Islands (including State Marine Park)	Lowendal Islands (including State Nature Reserves)	Barrow 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 Reserves)	Pilbara Islands - Northern Island Group (Sandy Island Passage Islands - State nature reserves)	Abrilhos Islands	Kimberley Coast	Dampier Peninsula	Northern Pilbara Shoreline	Ningaloo Coast (North/North West Cape, Middle and South) (WHA and State Marine Park)	Shark Bay - Open Ocean Coast	Shark Bay (WHA, State Marine Park)	Ngari Capes State Marine Park								
<b>Habitat</b>																																																	
Water Quality	SM01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Marine Sediment Quality	SM02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Coral Reef	SM03	X	X	X												X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Seagrass / Macro-Algae	SM03	X									X					X	X	X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Deeper Water Filter Feeders	SM03	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																								
Mangroves and Saltmarsh	SM04																										X																						
<b>Species</b>																																																	
Sea Birds and Migratory Shorebirds (significant colonies/ staging sites/ coastal wetlands)	SM05	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Marine Turtles (significant nesting beaches)	SM06	X	X	X	X		X	X	X							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Pinnipeds (significant colonies/ haul-out sites)	SM07									X	X	X			X																																	X	
Cetaceans – Migratory Whales	SM08	X	X	X	X		X	X	X	X	X	X	X	X	X												X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Oceanic and Coastal Cetaceans	SM08	X	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dugongs	SM08	X						X								X											X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Sea Snakes	SM08	X		X	X		X	X	X							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Whale Sharks	SM08			X			X	X										X									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Other Shark and Ray Populations	SM08, SM09	X	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fish Assemblages	SM09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Socio-economic</b>																																																	
Fisheries – Commercial	SM10		X	X	X	X	X	X	X	X	X																	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Fisheries – Traditional	SM10															X	X	X									X																						
Tourism (incl. recreational fishing)	SM10	X		X			X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
X	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)																																																
X	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)																																																
X	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: Baseline Studies for the SMPs applicable to identified Pre-emptive Baseline Areas for the Petroleum Activities Program**

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
Benthic Habitat (Coral Reef)	SM03 Quantitative assessment using image capture using either diver held camera or towed video. Post analysis into broad groups based on taxonomy and morphology.	<b>Studies:</b>			
		1. Glomar Shoal and Rankin Bank Environmental Survey Report, 2013, quantitatively surveyed benthic habitats and communities. AIMS report to Woodside. Scientific Publication - Biodiversity and spatial patterns of benthic habitat and associated demersal fish communities at two tropical submerged reef ecosystems, 2018. 2. Rankin Bank Environmental Survey Extension, 2014, Habitat assessment of an area southeast of Rankin Bank. 3. Glomar Shoal and Rankin Bank surveys, 2017. GWF-2 Monitoring Programme. Quantitatively surveyed benthic habitats and communities. 4. Temporal Studies survey of Rankin Bank and Glomar Shoal, 2018.	Barrow Island: East and West Coast baseline and monitoring for soft sediment, limestone pavement and coral assemblages (Chevron) Barrow, Montebello and Lowendal Islands: 1. Benthic community monitoring as part of DBCA Western Australian Marine Monitoring Program (2015-ongoing). 2. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013).	Coral Reefs & Filter Feeders 1. Montebello Marine Park, 2019, Identification and qualitative descriptions of benthic habitat. 2. Montebello Australian Marine Parks – 2019 – Baseline survey on benthic habitats. 3. Pluto Trunkline within Montebello Marine Park – Monitoring marine communities.	1. Benthic habitat mapping of the subtidal and intertidal habitats of the islands and shoals. Coral communities in shallow subtidal habitat, intertidal pavement. 2. Coral monitoring at Varanus and Airlie Islands (2000 to present) to identify corals, growth from and percentage cover 3. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013; 2016)
		<b>Methods:</b>			
		1. Towed video transects, photo quadrats using towed video system. 2. Towed video transects, photo quadrats using towed video system. 3. Towed video transects, photo quadrats using towed video system. 4. Towed video transects, photo quadrats using towed video system.	Barrow Island: Coral habitat – mapping, rapid visual assessment, size-class frequency, photoquadrats – live coral cover and survival, tagged corals – growth and survival and coral recruitment Benthic macro-invertebrate surveys – video belt transects Barrow, Montebello and Lowendal Islands: 1. Fixed long-term monitoring sites. Diver video transect. 2. Towed video, benthic trawl and sled.	1. ROV Transects 2. Benthic habitat mapping, multibeam acoustic swathings. 3. ROV video.	1. ROV transects. 2. ROV transects and driver surveys 3. Towed video, benthic trawl and sled
<b>References and data:</b>					
1. AIMS 2014a and Abdul Wahab et al., 2018. DATAHOLDER: AIMS. 2. AIMS 2014b. DATAHOLDER: AIMS. 3. Currey-Randall et. al., 2019. DATAHOLDER: AIMS 4. Currey-Randall et. al., 2019. DATAHOLDER: AIMS	Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia Barrow, Montebello and Lowendal Islands: 1. WA Department of Biodiversity, Conservation and Attractions (DBCA) DATAHOLDER: DBCA 2. Pitcher et al. 2016 DATAHOLDER: CSIRO	1. Advisian 2019 2. Keesing 2019 3. McLean et al. 2019	1. Chevron 2010. DATAHOLDER: Chevron. 2. Quadrant Energy/Santos 2016 DATAHOLDER: Santos 3. CSIRO (2013; 2016). Roland Pitcher. DATAHOLDER		
Benthic Habitat (Seagrass and Macro-algae)	SM03 Quantitative assessment using image capture using either diver held camera or towed video. Post analysis into broad groups based on	<b>Studies:</b>			
			Barrow Island: East Barrow Island – Chevron baseline and monitoring	N/A – see Table D-1	1. Benthic habitat mapping of the subtidal and intertidal habitats of the islands and shoals. Algae communities in shallow subtidal habitat, intertidal pavement. 3. Pilbara Marine Conservation Partnership Seabed biodiversity survey (2013; 2016)
<b>Methods:</b>					

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group		
	taxonomy and morphology.		East Barrow – seagrass photoquadrats (30 m transects) during spring/summer and winter periods Macroalgae photoquadrats, visual census and biomass and specimen sampling		1. ROV transects. 2. Towed video, benthic trawl and sled		
<b>References and data:</b>							
			Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia		1. Chevron 2010. DATAHOLDER: Chevron 2. CSIRO (2013, 2016). Roland Pitcher. DATAHOLDER		
<b>Benthic Habitat (Deeper Water Filter Feeders)</b>	<b>SM03</b> Quantitative assessment using image capture using towed video. Post analysis into broad groups based on taxonomy and morphology.	<b>Studies:</b>					
		As above (SM03 Coral Reefs)		As above (SM03 Coral Reefs)	N/A – See Table D-1		
<b>Methods:</b>							
					N/A – See Table D-1		
<b>References and data:</b>							
					N/A – See Table D-1		
<b>Mangroves and Saltmarsh</b>	<b>SM04</b> Aerial photography and satellite imagery will be used in conjunction with field surveys to map the range and distribution of mangrove communities.	<b>Studies:</b>					
		N/A – See Table D-1	Barrow Island: East and West Coast baseline and monitoring – mapping (HR aerial imagery) and vegetation surveys	N/A – see Table D-1	1. Study conducted by URS (November 2008 to May 2009) to ground truth aerial photography taken between 2001 and 2009 and to identify mangrove species present in the area.		
<b>Methods:</b>							
			Barrow – Chevron (2015a and b) – HR mapping (aerial images) and vegetation surveys using belt transects – species composition, estimated total canopy cover, total number of trees, pneumatophore density and canopy density.		1. Aerial Photography and Satellite imagery Species identification and community composition.		
<b>References and data:</b>							
			Barrow Island: Chevron Australia (2015a and b) DATAHOLDER: Chevron Australia		1. URS (2010) DATAHOLDER: Chevron Australia		
<b>Seabirds</b>	<b>SM05</b> Visual counts of breeding seabirds, nest counts, intertidal bird counts at high tide.	<b>Studies:</b>					
		N/A – See Table D-1	Barrow Island: Barrow Island Seabird Monitoring Program (Chevron) Barrow, Montebello and Lowendal Islands: 1. Johnston et al (2013) general inventory and distribution for the Pilbara region (WA Museum) 2. Santos – Integrated Shearwater Monitoring Program (1994-2016) 3. Santos – monitoring of seabird breeding colonies throughout the Lowendal Group of Islands.	N/A – see Table D-1	1. Migratory waterbirds relevant to the Wheatstone Project on behalf of URS in 2008 - 2009. 2. Quadrant Energy/Santos – Integrated Shearwater Monitoring Program (1994-2016). 3. Exmouth Sub-basin Avifauna Monitoring Program (2013-2014)		
<b>Methods:</b>							

Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
			<p>Barrow Island – 2008-ongoing annual surveys: abundance, nest density, presence/absence of egg or chick/fledgling</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Desktop review (WA Museum)</li> <li>2. Nest burrow density, presence/absence of eggs or chicks in burrows</li> <li>3. The distribution and abundance of other nesting seabirds within the Lowendal Island group, including up to 45 islands and islets</li> </ol>		<ol style="list-style-type: none"> <li>1. Ground counts, aerial surveys of wetlands by helicopter.</li> <li>2. Burrow count and observation data, burrow density, colony stability, breeding participation, incubation effort and reproductive success has been determined. Tagging data</li> <li>3. Aerial surveys and onshore island surveys.</li> </ol>
<b>References and data:</b>					
			<p>Barrow – Chevron (2015c)</p> <p>DATAHOLDER: Chevron Australia</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Johnstone et al (2013) DATAHOLDER: (WA Museum)</li> <li>2. Santos DATAHOLDER: Santos</li> <li>3. Surman and Nicholson (2012) DATAHOLDER: Santos</li> </ol>		<ol style="list-style-type: none"> <li>1. Bamford, MJ &amp; AR. 2011. DATAHOLDER: Chevron.</li> <li>2. Quadrant Energy/Santos. Dataholders. Santos</li> <li>3. Quadrant Energy/Santos. Dataholders. Santos</li> </ol>
<b>Turtles</b>	<b>SM06</b> Beach surveys (recording species, nests, and false crawls).	<b>Studies:</b> N/A – See Table D-1	<p>Barrow Island:</p> <p>Chevron Australia: long term monitoring programs for flatback turtles</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Marine turtle monitoring as part of DBCA long-term turtle monitoring program (ongoing).</li> <li>2. LTM Study of Green, Flatback, Hawksbill turtles on beaches within the Barrow, Lowendal and Montebello Island Complex.</li> <li>3. Santos 2013 turtle nesting survey on the Lowendal islands.</li> <li>4. Varanus Island Turtle monitoring program (2005 – present).</li> </ol> <p>North West Shelf Flatback Conservation Program – conserve North West Shelf stock – scope covers all summer nesting flatback turtles - <a href="https://flatbacks.dbca.wa.gov.au/about">https://flatbacks.dbca.wa.gov.au/about</a></p>	N/A – see Table D-1	<ol style="list-style-type: none"> <li>1. Baseline marine turtle surveys 2009 (included the islands of Serrurier, Bessieres and Thevenard), Pendoley (2009).</li> <li>2. Exmouth Islands Turtle Monitoring Program (2013 and 2014)</li> <li>3. North West Shelf Flatback Turtle Conservation Program's</li> <li>4. Inter-nesting distribution of flatback turtles and industrial development in Western Australia (Thevenard Island)</li> </ol>
<b>Methods:</b>					



Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
			<p>Barrow Island – Chevron Australia: 2005 - ongoing annual surveys, flatback turtles – nesting success, track counts and satellite tracking, hatchling survival and dispersal.</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Nesting demographics</li> <li>2. Nesting demographics</li> <li>3. Tagging and nest counts</li> <li>4. Tagging and nest counts at Varanus, Beacon, Bridled, Abutilon and Parakeelya islands.</li> </ol> <p>North West Shelf Flatback Conservation Program - <a href="https://flatbacks.dbca.wa.gov.au/program-activities">https://flatbacks.dbca.wa.gov.au/program-activities</a></p>		<ol style="list-style-type: none"> <li>1. Beach/Nesting surveys (counts by species).</li> <li>2. Beach/Nesting surveys (counts by species).</li> <li>3. Nesting and tagging studies</li> <li>4. Satellite tracking methods</li> </ol>
<b>References and data:</b>					
			<p>Barrow Island – Chevron (2015c) DATAHOLDER: Chevron Australia</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. DBCA</li> <li>2. Pendoley 2005. AMOSC/DBCA (DPaW) 2014.</li> <li>3. Santos (2014) DATAHOLDER: Santos</li> <li>4. Santos (2005-prsésent) DATAHOLDER: Santos</li> </ol> <p>North West Shelf Flatback Conservation Program <a href="https://flatbacks.dbca.wa.gov.au/program-activities">https://flatbacks.dbca.wa.gov.au/program-activities</a></p>		<ol style="list-style-type: none"> <li>1. Pendoley 2009. DATAHOLDER: Chevron.</li> <li>2. Quadrant Energy/Santos. Dataholders. Santos</li> <li>3. DBCA. Dataholder</li> <li>4. Pendoley Environment -Whitlock, Pendoley and Hamann (2010-2011)</li> </ol>
<b>Fish</b>	<b>SM09</b> Baited Remote Underwater Video Stations (BRUVS), Visual Underwater Counts (VUC), Diver Operated Video (DOV).	<b>Studies:</b> <ol style="list-style-type: none"> <li>1. Glomar Shoal and Rankin Bank Environmental Survey Report, 2013, quantitatively surveyed benthic habitats and communities. AIMS report to Woodside. Scientific Publication - Biodiversity and spatial patterns of benthic habitat and associated demersal fish communities at two tropical submerged reef ecosystems, 2018.</li> <li>2. Rankin Bank Environmental Survey Extension, 2014, Habitat assessment of an area southeast of Rankin Bank.</li> <li>3. Glomar Shoal and Rankin Bank surveys, 2017. GWF-2 Monitoring Programme. Quantitatively surveyed benthic habitats and communities.</li> <li>4. Temporal Studies survey of Rankin Bank and Glomar Shoal, 2018.</li> </ol>	<p>Barrow Island:</p> <p>Chevron: East and West Coast intertidal and subtidal baseline and monitoring</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Pilbara Marine Conservation Partnership Stereo BRUVS drops in shallow water (~10m) from Exmouth to Barrow Islands in 2015.</li> <li>2. Finfish monitoring as part of DBCAs Western Australian Marine Monitoring Program (2015-ongoing).</li> </ol>	<ol style="list-style-type: none"> <li>1. CSIRO – Fish Diversity.</li> <li>2. Fish species richness and abundance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pilbara Marine Conservation Partnership Stereo BRUVS drops in deep water (20-55m) offshore of Bessieres Island in 2016.</li> </ol>
<b>Methods:</b>					
		<ol style="list-style-type: none"> <li>1. BRUVs.</li> <li>2. BRUVs.</li> <li>3. BRUVs.</li> <li>4. BRUVs.</li> </ol>	<p>Barrow Island – Chevron (2015a and b) – demersal fish: stereo BRUVS (subtidal habitats) and netting combination for mangrove habitat</p> <p>Barrow, Montebello and Lowendal Islands:</p> <ol style="list-style-type: none"> <li>1. Stereo BRUVS.</li> <li>2. Diver underwater visual surveys (UVS)</li> </ol>	<ol style="list-style-type: none"> <li>1. Semi V Wing trawl net or an epibenthic sled.</li> <li>2. ROV Video.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stereo BRUVs</li> </ol>
<b>References and data:</b>					



Major Baseline	Proposed Scientific monitoring operational plan and Methodology	Rankin Bank & Glomar Shoal	Barrow, Montebello and Lowendal Islands	Montebello AMP	Pilbara Islands – Southern Island Group
		1. AIMS 2014a and Abdul Wahab et al., 2018. DATAHOLDER: AIMS. 2. AIMS 2014b. DATAHOLDER: AIMS. 3. Currey-Randall et. al., 2019. DATAHOLDER: AIMS 4. Currey-Randall et. al., 2019. DATAHOLDER: AIMS	Barrow Island – Chevron Australia (2015a and b) DATAHOLDER: Chevron Barrow, Montebello and Lowendal Islands: 1. Unpublished report CSIRO DATAHOLDER: CSIRO, CSIRO Data centre ( ) 2. DBCA	1. Keesing 2019. 2. McLean et al. 2019.	1. CSIRO. DATAHOLDER: CSIRO ( )

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## ANNEX E: TACTICAL RESPONSE PLANS

<b>TACTICAL RESPONSE PLANS</b>
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 Island – Stephenson Channel Nth TRP
Montebello Island – Champagne Bay and Chippendale channel TRP
Montebello Island – Claret Bay TRP
Montebello Island – Hermite/Delta Island Channel TRP
Montebello Island – Hock Bay TRP
Montebello Island – North and Kelvin Channel TRP
Montebello Island – Sherry Lagoon Entrance TRP
Withnell Bay
Holden Bay
King Bay
No Name Bay / No Name Beach
Enderby Island – Dampier
Rosemary Island – Dampier
Legendre Island – Dampier
Karratha Gas Plant

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## **TACTICAL RESPONSE PLANS**

KGP to Withnell 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

## APPENDIX I FIRST STRIKE PLAN

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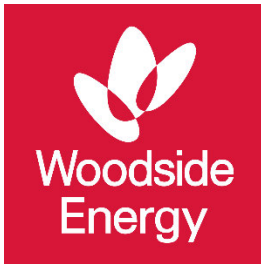
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# Goodwyn Alpha Geophysical and Geotechnical Surveys – Oil Pollution First Strike Plan

Corporate HSE

Hydrocarbon Spill Preparedness

February 2024

Revision 0a

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## CONTROL AGENCIES AND INCIDENT CONTROLLERS

Source	Location	Level	Control Agency	Incident Controller
<b>Spill from facility including subsea infrastructure</b>  Note: pipe laying and accommodation vessels are considered a "facility" under Australian regulations	Commonwealth waters	1	Woodside	Person In Charge (PIC) with support from Onshore Team Leader (OTL)
		2/3	Woodside	Corporate Incident Management Team (CIMT) Incident Commander (IC)
	State waters	1	Woodside	CIMT IC
		2/3	Department of Transport (DoT)	DoT Incident Controller
	Within port limits	1	Woodside	CIMT IC
		2/3	DoT	DoT Incident Controller
<b>Spill from vessel</b>  Note: SOPEP should be implemented in conjunction with this document	Commonwealth waters	1	Australian Marine Safety Authority (AMSA)	Vessel Master
		2/3	AMSA	AMSA (with response assistance from Woodside)
	State waters	1	DoT	DoT Incident Controller
		2/3	DoT	DoT Incident Controller
	Within port limits	1	Port Authority	Port Harbour Master
		2/3	Port Authority / DoT	Port Harbour Master/ DoT Incident Controller

## SPILLS IN STATE/ PORT WATERS

As detailed in the table above, in the event of a hydrocarbon spill (hereafter 'spill') where Woodside Energy Ltd ('Woodside') is the responsible party and the spill may impact State waters and shorelines, Woodside (or the Vessel Master) will commence the initial response actions and notify the Western Australian Department of Transport (DoT). In the event that Woodside is the responsible party for a spill that enters port limits, Woodside will notify the relevant Port Authority for all spills, and also notify DoT for Level 2 and 3 spills.

Initially Woodside will be required to make available an appropriate number of suitably qualified persons to work in the DoT IMT ([APPENDIX F – Woodside Liaison Officer resources to DoT](#)). DoT/ Port Authority's role as the Controlling Agency in State waters/ within port limits 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/ within port limits 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\\_OffshorePetroleumIncidentGuidance.pdf](https://www.transport.wa.gov.au/mediaFiles/marine/MAC_P_Westplan_MOP_OffshorePetroleumIncidentGuidance.pdf)

Woodside's Incident Management Structure for a hydrocarbon spill, including Woodside Liaison Officer's command structure within DoT can be seen at [APPENDIX E – Woodside Incident Management Structure](#).

The coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State waters/ shorelines is shown in [APPENDIX D](#) – Coordination structure for a concurrent hydrocarbon spill in both Commonwealth and State waters/ shorelines.

## RESPONSE PROCESS OVERVIEW

For guidance on credible scenarios and hydrocarbon characteristics, refer to <a href="#">APPENDIX A</a>									
ALL INCIDENTS	Notify the Woodside Communication Centre (WCC) on: [REDACTED]								
	Incident Controller or delegate to make relevant notifications in <b>Table 1-1</b> of this Oil Pollution First Strike Plan.								
LEVEL 1	<table border="1"> <thead> <tr> <th style="background-color: #0070C0; color: white;">FACILITY INCIDENT</th> <th style="background-color: #C00000; color: white;">VESSEL INCIDENT</th> </tr> </thead> <tbody> <tr> <td>Coordinate pre-identified tactics in <b>Table 2-1</b> of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.</td> <td>Notify AMSA or Port Authority (if within port limits) and coordinate pre-identified tactics <b>Table 2-1</b> of this Oil Pollution First Strike Plan Remember to download each Operational Plan.</td> </tr> </tbody> </table>	FACILITY INCIDENT	VESSEL INCIDENT	Coordinate pre-identified tactics in <b>Table 2-1</b> of this Oil Pollution First Strike Plan. Remember to download each Operational Plan.	Notify AMSA or Port Authority (if within port limits) and coordinate pre-identified tactics <b>Table 2-1</b> of this Oil Pollution First Strike Plan Remember to download each Operational Plan.				
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If the spill escalates such that the site cannot manage the incident, inform the WCC on: [REDACTED] and escalate to a level 2/3 incident.									
LEVEL 2/3	<table border="1"> <thead> <tr> <th style="background-color: #0070C0; color: white;">FACILITY INCIDENT</th> <th style="background-color: #C00000; color: white;">VESSEL INCIDENT</th> </tr> </thead> <tbody> <tr> <td>Handover control to CIMT and notify DoT or Port Authority (if within port limits)</td> <td>Handover control to AMSA or Port Authority (if within port limits) and stand up CIMT to assist.</td> </tr> <tr> <td>Commence quick revalidation of the recommended strategies <b>Table 2-1</b> taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.</td> <td>If requested by AMSA or Port Authority: Commence quick revalidation of the recommended strategies in <b>Table 2-1</b> taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.</td> </tr> <tr> <td>Create an Incident Action Plan (IAP) for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational Net Environmental Benefit Analysis (NEBA) see the OSPRMA Appendix A</td> <td>If requested by AMSA or Port Authority: Create an IAP for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational NEBA see the OSPRMA Appendix A</td> </tr> </tbody> </table>	FACILITY INCIDENT	VESSEL INCIDENT	Handover control to CIMT and notify DoT or Port Authority (if within port limits)	Handover control to AMSA or Port Authority (if within port limits) and stand up CIMT to assist.	Commence quick revalidation of the recommended strategies <b>Table 2-1</b> taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.	If requested by AMSA or Port Authority: Commence quick revalidation of the recommended strategies in <b>Table 2-1</b> taking into consideration seasonal sensitivities and current situational awareness. Commence validated strategies.	Create an Incident Action Plan (IAP) for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational Net Environmental Benefit Analysis (NEBA) see the OSPRMA Appendix A	If requested by AMSA or Port Authority: Create an IAP for all ongoing operational periods. The content of the IAP should reflect the selected response strategies based on current situational awareness. For the full detailed pre-operational NEBA see the OSPRMA Appendix A
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	Handover control to CIMT and notify DoT or Port Authority (if within port limits)	Handover control to AMSA or Port Authority (if within port limits) and stand up CIMT to assist.							
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# 1. NOTIFICATIONS

The Incident Controller or delegate must ensure the below notifications (Table 1-1) are completed within the designated timeframes.

**For spills from a vessel, relevant notifications must be undertaken by a Woodside representative.**

**Table 1-1: Notifications**

**In the event of an incident between campaign vessels, also activate relevant vessel Emergency Response Plans and/or Bridging Documents**

Timing	By	To	Name	Contact	Instruction	Form	Complete? (✓)
<b>NOTIFICATIONS FOR ALL LEVELS OF SPILL</b>							
Immediately	Offshore Installation Manager (OIM) or Vessel Master	Woodside Communication Centre (WCC)	Corporate Incident Management Team Incident Commander (CIMT IC)	[REDACTED]	Verbally notify WCC of event and estimated volume and hydrocarbon type.	Verbal	
Within 2 hours	Woodside Site Rep (WSR), CIMT IC or Delegate	National Offshore Petroleum Safety Environmental Management Authority (NOPSEMA <sup>1</sup> )	Incident notification office	[REDACTED]	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 National Offshore Petroleum Titles Authority (NOPTA) and Department of Mines Industry Regulation and Safety (DEMIRS)).		
Within 3 days	WSR, CIMT IC or Delegate				Provide a written NOPSEMA Incident Report Form as soon as practicable (no later than 3 days after notification) (cc to NOPTA and DEMIRS) NOPSEMA [REDACTED] NOPTA [REDACTED] DEMIRS [REDACTED]		
As soon as practicable	CIMT IC or Delegate	Woodside	Environment Unit Leader	As per roster	Verbally notify Environment Unit Leader of event and seek advice on relevant performance standards from Environment Plan (EP)	Verbal	
Within 2 hours of becoming aware of a marine pollution incident (MOP) that occurs in or may impact state waters	CIMT IC or Delegate	WA Department of Transport	DoT Maritime Environmental Emergency Response Unit (MEER) Duty Officer	[REDACTED]	Verbally notify DoT MEER Duty Officer that a spill has occurred and, if required, request use of equipment stored in [Karratha/Fremantle]. Follow up with a written Marine Pollution Report (POLREP) as soon as practicable following verbal notification. Additionally, DoT to be notified if spill is likely to extend into WA State waters. Request DoT to provide Liaison to Woodside CIMT.		
As soon as practicable	CIMT IC or Delegate	Department of Climate Change, Energy, the Environment and Water (DCCEEW) Director of National Parks	Marine Park Compliance Duty Officer	[REDACTED]	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: <ul style="list-style-type: none"> <li>• titleholder details</li> <li>• time and location of the incident</li> <li>• proposed response arrangements and locations as per the OPEP</li> <li>• contact details for the response coordinator</li> <li>• confirmation of access to relevant monitoring and evaluation reports when available.</li> </ul>	Verbal	
As soon as practicable if there is potential for oiled wildlife or the spill is expected to contact	CIMT IC or Delegate	WA Department of Biodiversity, Conservation and Attractions (DBCA)	Duty Officer	[REDACTED]	Phone call notification	Verbal	

<sup>1</sup> Notification to NOPSEMA must be from a Woodside Representative.



Timing	By	To	Name	Contact	Instruction	Form	Complete? (✓)
land or waters managed by WA Department of Biodiversity, Conservation and Attractions							
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, port authorities and 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 the Goodwyn Alpha Geophysical and Geotechnical Surveys EP. Relevant persons/ organisations will be re-assessed 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 the Goodwyn Alpha Geophysical and Geotechnical Surveys EP. Relevant cultural authorities will be re-assessed throughout the response period.	Verbal initially	
As soon as practicable if spill arises in or is likely to extend into port limits.	CIMT IC or Delegate	Pilbara Ports Authority (PPA)	PPA Port Harbour Master	[REDACTED]	Any spill within or close to the Port boundary should be reported immediately to the PPA Port Harbour Master	Verbal/ [REDACTED]	
<b>ADDITIONAL NOTIFICATIONS TO BE MADE ONLY IF SPILL IS FROM A VESSEL</b>							
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)	[REDACTED]	Verbally notify AMSA RCC of the hydrocarbon spill. Follow up with a written POLREP as soon as practicable following verbal notification.	[REDACTED]	
<b>ADDITIONAL LEVEL 2/3 NOTIFICATIONS</b>							
As soon as practicable	CIMT IC or Delegate	Australian Marine Oil Spill Centre (AMOSC)	AMOSC Duty Manager	[REDACTED]	Notify AMOSC that a spill has occurred and follow-up with an email from the <b>CIMT IC/ CIMT Deputy IC/ Crisis Management Team (CMT) Leader</b> to formally activate AMOSC. Determine what resources are required consistent with the AMOS Plan and detail in a Service Contract that will be sent to Woodside from AMOSC upon activation.	[REDACTED]	
As soon as practicable	CIMT IC or Delegate	Oil Spill Response Limited (OSRL)	OSRL Duty Manager	[REDACTED]	Contact OSRL Duty Manager and request assistance from technical advisor in Perth. Send the completed notification form to OSRL as soon as practicable.	[REDACTED]	
					For mobilisation of resources, send the Mobilisation Form to OSRL as soon as practicable. The mobilisation form must be signed by a nominated callout authority from Woodside. OSRL can advise the names on the call out authority list, if required.	[REDACTED]	

Timing	By	To	Name	Contact	Instruction	Form	Complete? (✓)
As soon as practicable if extra personnel are required for incident support	CIMT IC 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. RESPONSE TECHNIQUES

Table 2-1: Response techniques

Technique	Spill type MDO	Level	Pre- Identified Tactics	Responsible	ALARP Commitment Summary	Link to Operational Plans for notification numbers and actions
Operational monitoring – tracking buoy (OM02)	Yes	ALL	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	<b>DAY 1:</b> Tracking buoy deployed within 2 hours.	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02) of The Operational Monitoring Operational Plan.  Deploy tracking buoy in accordance with <a href="#">Link</a> .
Operational monitoring – predictive modelling (OM01)	Yes	ALL	Undertake initial modelling using the <a href="#">Rapid Assessment Oil Spill Tool</a> and weathering fate analysis using Automated Data Inquiry for Oil Spills (ADIOS) or refer to the hydrocarbon information in <b>Appendix A</b> .	Intelligence or Environment	<b>DAY 1:</b> Initial modelling within 6 hours using the Rapid Assessment Tool.	Predictive Modelling of Hydrocarbons to Assess Resources at Risk (OM01 of The Operational Monitoring Operational Plan). <i>Planning to download immediately and follow steps</i>
	Yes	ALL	Send Oil Spill Trajectory Modelling (OSTM) form ( <a href="#">Appendix B, Form 7</a> ) to RPS Response (██████████).	Situation	<b>DAY 1:</b> Detailed modelling within 4 hours of RPS Response receiving information from Woodside.	
Operational monitoring – aerial surveillance (OM02)	Yes	ALL	Instruct Aviation Unit Leader to commence aerial observations in daylight hours. Aerial surveillance observer to complete log in <a href="#">Appendix B Form 8</a> .	Aviation	<b>DAY 1:</b> 2 trained aerial observers. 1 aircraft available.  Report made available to the IMT within 2 hours of landing after each sortie.	Surveillance and Reconnaissance to Detect Hydrocarbons and Resources at Risk (OM02 of The Operational Monitoring Operational Plan).  <i>Planning to download immediately and follow steps</i>
Operational monitoring – satellite tracking (OM02)	Yes	ALL	The Situation Unit Leader to action satellite imagery services. This may be obtained via: <ul style="list-style-type: none"> <li>• AMOSC Duty Manager: ██████████</li> <li>• OSRL Duty Manager: ██████████</li> <li>• KSAT: ██████████</li> <li>• Others identified by CIMT</li> </ul>	Situation	<b>DAY 1:</b> Service provider will confirm availability of an initial acquisition within 2 hours.  Data received to be uploaded into Woodside Common Operating Picture.	
Operational monitoring – pre-emptive assessment of receptors at risk (OM04)	Yes	ALL	Consider the need to mobilise resources to undertake pre-emptive assessment of sensitive receptors at risk (OM04).	Planning or Environment	<b>DAY 2:</b> In agreement with WA DoT, deployment of 2 specialists for each of the Response Protection Areas (RPA) with predicted impacts.	Pre-emptive Assessment of Sensitive Receptors (OM04 of The Operational Monitoring Operational Plan).
Operational monitoring – shoreline assessment (OM05)	Yes	ALL	Consider the need to mobilise resources to undertake shoreline assessment surveys (OM05).	Planning or Environment	<b>DAY 2:</b> In agreement with WA DoT, deployment of 2 specialists trained in Shoreline Clean-up Assessment Technique (SCAT) for each of the RPAs with predicted impacts.	Shoreline Assessment (OM05 of The Operational Monitoring Operational Plan).
Operational monitoring – monitoring hydrocarbons in water (OM03)	Yes	ALL	Consider the need to mobilise resources to undertake water quality monitoring (OM03).	Planning or Environment	<b>DAY 3:</b> 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).
Surface dispersant	No	N/A	Potential spill volumes and hydrocarbon properties for Marine Diesel Oil (MDO) spill not suited to surface dispersant.	N/A		
Containment and recovery	No	N/A	Potential spill volumes and hydrocarbon properties for MDO spill not suited to containment and recovery.	N/A		
Mechanical dispersion	No	N/A	This response strategy is not recommended	N/A		



Technique	Spill type MDO	Level	Pre- Identified Tactics	Responsible	ALARP Commitment Summary	Link to Operational Plans for notification numbers and actions
In-situ burning	No	N/A	This response strategy is not recommended.	N/A		
Shoreline protection and deflection	No	N/A	No shoreline contact above Moderate exposure values (100 g/m <sup>2</sup> ) is predicted.	N/A		Protection and Deflection Operational Plan <i>Logistics to download immediately and follow steps</i>
Shoreline clean-up	No	N/A	No shoreline contact above Moderate exposure values (100 g/m <sup>2</sup> ) is predicted.	N/A		Shoreline Clean-up Operational Plan <i>Logistics to download immediately and follow steps</i>
Oiled wildlife response	Yes	ALL	If oiled wildlife is a potential impact, request AMOSC to mobilise containerised oiled wildlife first strike kits and relevant personnel. Refer to relevant Tactical Response Plan for potential wildlife at risk.  Mobilise AMOSC Oiled Wildlife Containers.  Consider whether additional equipment is required from local suppliers.	Logistics and Planning	<b>DAY 5:</b> Initiate a wildlife first strike response within 2 days of confirmed or imminent wildlife contact as directed by relevant Operational Monitoring techniques (OM01-05) and in liaison with DBCA.	Oiled Wildlife Response Operational Plan
Scientific monitoring	Yes	ALL	Notify Woodside science team of spill event.	Environment		Oil Spill Scientific Monitoring Programme – Operational Plan
<b>SOURCE CONTROL TECHNIQUES</b>						
SOPEP	Yes	ALL	Implementation of vessel SOPEP.	Vessel Master	<b>DAY 1:</b> A spill of diesel from a vessel collision will be instantaneous and source control will be limited to what the vessel or facility can safely achieve whilst responding to the incident.	Vessel SOPEP.



### 3. RESPONSE PROTECTION AREAS

**Action: Provide relevant Control Agency with applicable Tactical Response Plans for any Response Protection Areas (RPAs) identified during operational monitoring.**

Based on hydrocarbon spill modelling results, the sensitive receptors outlined in **Table 3-1** are identified as priority protection areas, as they have the potential to be contacted by hydrocarbon at or above impact threshold levels within 48 hours of a spill.

**Table 3-1: Receptors for priority protection with potential impact within 48 hours**

Receptor	Distance and Direction from Operational Area (km)	Minimum time to shoreline contact (above 100 g/m <sup>2</sup> ) in days	Maximum shoreline accumulation (above 100 g/m <sup>2</sup> ) in m <sup>3</sup>	Tactical Response Plans
Montebello MP	South – within MP	N/A – <i>submerged feature with floating contact at ≥10 g/m<sup>2</sup></i>	N/A – <i>submerged feature with floating contact at ≥10 g/m<sup>2</sup></i>	N/A

Montebello MP is the only receptor predicted to have surface oil ≥10 g/m<sup>2</sup> at any time for the duration of the spill. This receptor is open ocean so impacts from surface oil are expected to be low. There are no receptors predicted to have shoreline oil ≥10 g/m<sup>2</sup>.

Tactical Response plans for these locations can be accessed [here](#) and include the details of potential forward operating bases and staging areas.

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 3-1** illustrates the location of regional sensitive receptors in relation to the Goodwyn Alpha Geophysical and Geotechnical Operational Area and identifies priority protection areas.

Consideration should be given to other stakeholders (including mariners) in the vicinity of the spill location. **Table 3-2** indicates the assets within the vicinity of the Goodwyn Alpha Geophysical and Geotechnical Operational Area.

**Table 3-2: Assets in the vicinity of the Goodwyn Alpha Geophysical and Geotechnical Operational Area**

Asset	Distance and Direction from Operational Area	Operator
Angel Platform	Within operational area	Woodside
Okha FPSO	Southwest – ~10 km East – ~22 km	Woodside
North Rankin Complex	Within operational area	Woodside
Goodwyn Platform	Northeast – ~18 km Southwest – ~7 km	Woodside
Pluto Platform	West – ~6 km	Woodside
Various production gas flowlines	Within or in close proximity to operational areas	Woodside

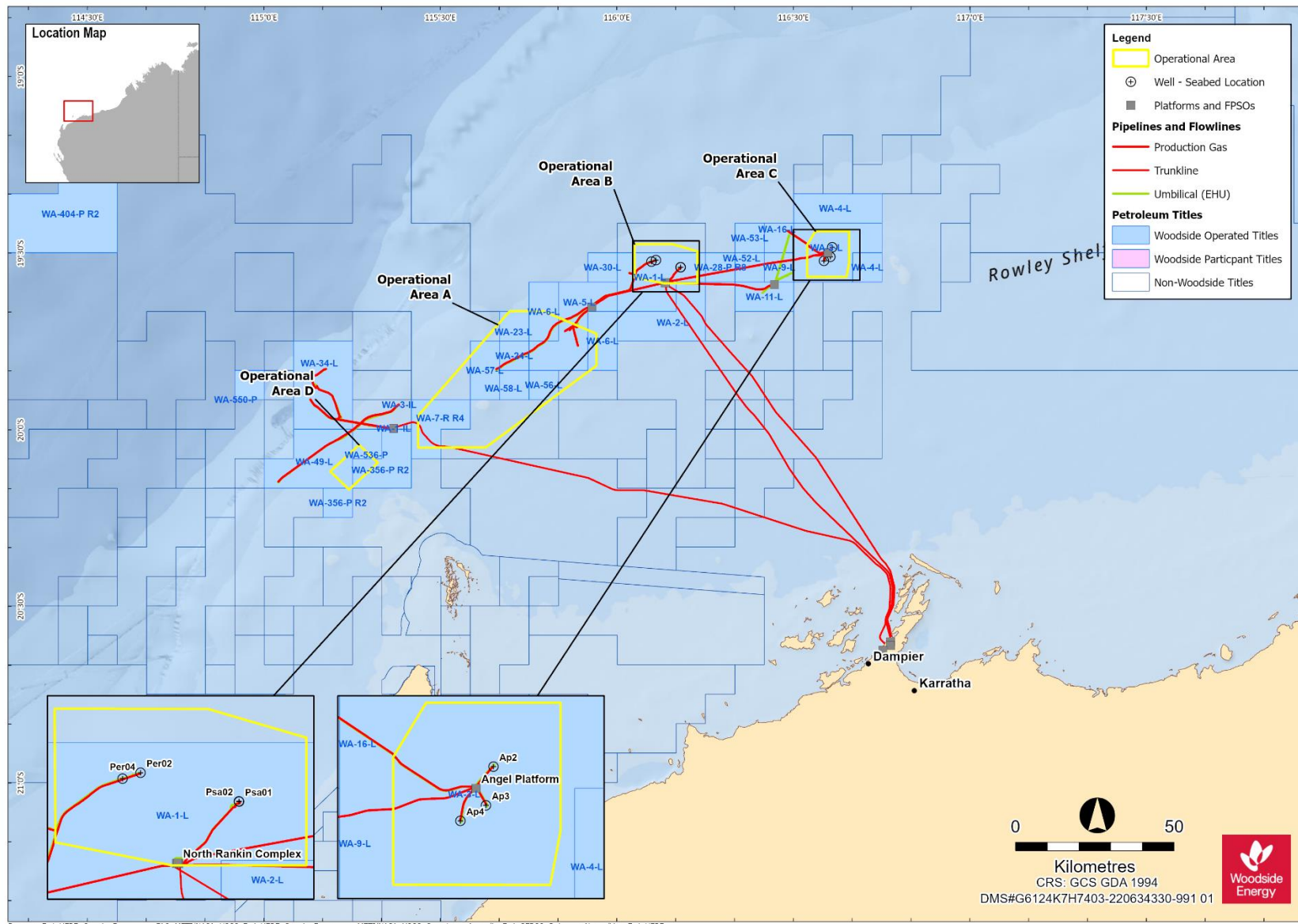


Figure 3-1: Regional sensitive receptors

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Uncontrolled when printed. Refer to electronic version for most up to date information.

## **4. DISPERSANT APPLICATION**

Dispersant is not considered an appropriate response strategy for this activity as described in the Goodwyn Alpha Geophysical and Geotechnical Environment Plan Appendix D (Woodside's Oil Spill Preparedness and Response Mitigation Assessment).

## APPENDIX A – CREDIBLE SPILL SCENARIOS AND HYDROCARBON INFORMATION

Table A - 1: Credible spill scenarios and hydrocarbon information

Scenario	Product	API gravity	Volume	Residue	Weathering rate		Suggested ADIOS2 Analogue <sup>2</sup>
CS-01 (WCCS) Vessel collision at the Wilcox prospect	MDO	37.2°	182 m <sup>3</sup>	5% (9 m <sup>3</sup> )	12 hours (BP < 180 °C)	6.0%	Diesel Fuel Oil (Southern USA 1) API of 37.2
					24 hours (180 °C < BP < 265 °C)	34.6%	
					Several days (265 °C < BP < 380 °C)	54.4%	
CS-02 Vessel collision at the TPA03 wellsite <sup>3</sup>	MDO	37.2°	182 m <sup>3</sup>	5.0% (9 m <sup>3</sup> )	12 hours (BP < 180 °C)	6.0%	Diesel Fuel Oil (Southern USA 1) API of 37.2
					24 hours (180 °C < BP < 265 °C)	34.6%	
					Several days (265 °C < BP < 380 °C)	54.4%	

<sup>2</sup> Initial screening of possible ADIOS2 analogues considered hydrocarbons with similar APIs. Suggested selection is based on the closest distillation cut to the Woodside hydrocarbon. Only hydrocarbons with >380°C distillation cuts were included in selection process.

<sup>3</sup> Existing modelling was undertaken in 2023 for a release of 250 m<sup>3</sup> of MDO at the TPA03 wellsite location at the northern extent of Operational Area A. Given that the available modelling is 27% larger than the largest fuel tank of the vessel proposed for this activity (182 m<sup>3</sup>) and is within closer proximity to the nearest shoreline than Operational Areas B and C, it is deemed representative and additional modelling for these areas was therefore not required.

## APPENDIX B – NOTIFICATION FORMS

**Table B - 1: Notification forms**

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	AMOSOC Service Contract	■
5	Marine Pollution Report (POLREP – DoT)	■
6a	OSRL Initial Notification Form	■
6b	OSRL Mobilisation Activation Form	■
7	RPS Response Oil Spill Trajectory Modelling Request	■
8	Aerial Surveillance Observer Log	■
9	Tracking buoy deployment instructions	■

**FORM 1 – RECORD OF INITIAL VERBAL NOTIFICATION TO NOPSEMA**



<b>NOPSEMA phone:</b> _____			
Date of call	_____		
Time of call	_____		
Call made by	_____		
Call made to	_____		
<b>Information to be provided to NOPSEMA:</b>			
Date and time of incident/ time caller became aware of incident	_____		
Details of incident	1. Location	_____	
	2. Title	_____	
	3. Source	<input type="checkbox"/> Platform	
		<input type="checkbox"/> Pipeline	
		<input type="checkbox"/> FPSO	
		<input type="checkbox"/> Exploration drilling	
		<input type="checkbox"/> Well	
	<input type="checkbox"/> Other (please specify)	_____	
	4. Hydrocarbon type	_____	
	5. Estimated volume	_____	
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	_____		
<b>After the initial call is made to NOPSEMA, please send this record as soon as practicable to:</b>			
NOPSEMA	_____		
NOPTA	_____		
DEMIRS	_____		



## APPENDIX C – SPILL ASSESSMENT QUESTIONS

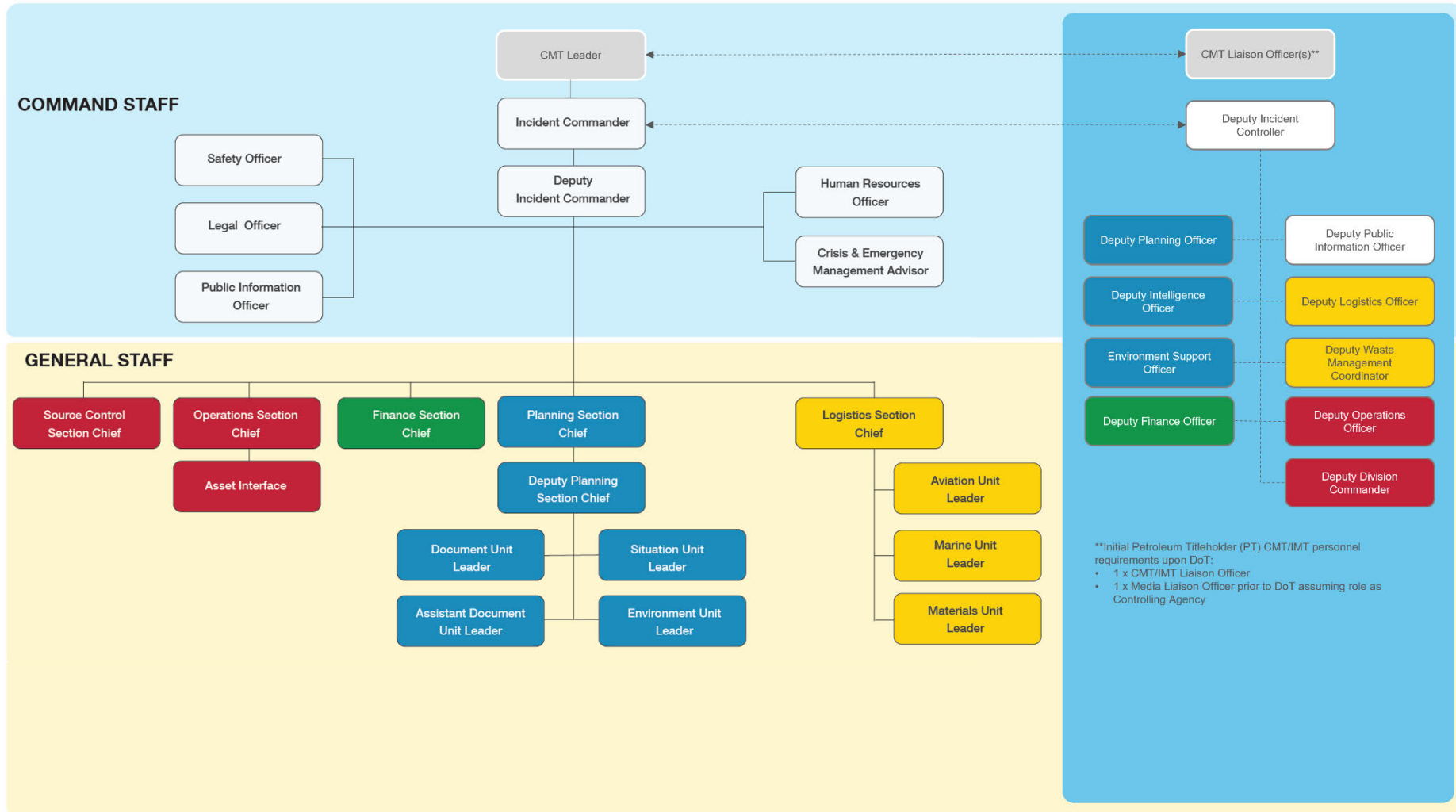
What has happened?		
Date/time		
Spill source		
Spill cause		
Safety situation		
What is it?		
Oil type and name		
Oil properties	Specific gravity	
	Viscosity	
	Pour point	
	Asphaltenes	
	Wax content	
	Boiling point	
Where is it?		
Latitude and longitude		
Distance and bearing		
Affected area	<input type="checkbox"/> Offshore	
	<input type="checkbox"/> Subsea	
	<input type="checkbox"/> Shoreline	
	<input type="checkbox"/> Estuary	
	<input type="checkbox"/> Port	
	<input type="checkbox"/> Harbour	
	<input type="checkbox"/> Inland	
	<input type="checkbox"/> River	
	<input type="checkbox"/> Other (please detail):	
Water depth		
How big is it?		
Area		
Release type	<input type="checkbox"/> Instantaneous	Estimated volume:
	<input type="checkbox"/> Continuous release	Estimated release rate:
Where is it going?		
Metocean conditions		
Currents and tides		
What is in the way?		
Resources at risk		
Time until resource contact		
What's happening to it?		
Weathering processes		
Response actions underway		





## APPENDIX E – 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 F – WOODSIDE LIAISON OFFICER RESOURCES TO DOT

In the event that DoT is required to establish an IMT, Woodside will make available an appropriate number of appropriately qualified persons to work within the DoT IMT. In the event the PPA is the Control Agency within the Dampier Port Limits, Woodside will make available similar roles as requested.

It is an expectation that Woodside’s nominated CIMT Liaison Officer and the Deputy Incident Controller attend the DoT Fremantle ICC as soon as possible after the formal request has been made by the State Marine Pollution Coordinator (SMPC), and no later than 8am on the day following the request being formally made. For Woodside personnel designated to serve in DoT’s Forward Operating Base (FOB), it is expected that they arrive at the FOB no later than 24 hours from the formal request being made by the SMPC.

Area	Role	Woodside personnel <sup>5</sup>	Key Duties	#
DoT Maritime Environmental Emergency Coordination Centre (MEECC)	CMT Liaison Officer	CIMT Liaison	<ul style="list-style-type: none"> <li>Provide a direct liaison between the CMT and the MEECC.</li> <li>Facilitate effective communications and coordination between the CIMT Leader and State Marine Pollution Coordinator (SMPC).</li> <li>Offer advice to SMPC on matters pertaining to PT crisis management policies and procedures.</li> </ul>	1
DoT IMT Incident Control	Deputy Incident Controller	Deputy Incident Commander (Deputy IC)	<ul style="list-style-type: none"> <li>Provide a direct liaison between the PT IMT and DoT IMT.</li> <li>Facilitate effective communications and coordination between the PT IC and the DoT IC.</li> <li>Offer advice to the DoT IC on matters pertaining to PT incident response policies and procedures.</li> <li>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.</li> </ul>	1
DoT IMT Intelligence	Deputy Intelligence Officer	Situation Unit Leader (Intelligence)	<ul style="list-style-type: none"> <li>As part of the Intelligence Team, assist the Intelligence Officer in the performance of their duties in relation to situation and awareness.</li> <li>Facilitate the provision of relevant modelling and predications from the PT IMT.</li> <li>Assist in the interpretation of modelling and predictions originating from the PT IMT.</li> <li>Facilitate the provision of relevant situation and awareness information originating from the DoT IMT to the PT IMT.</li> </ul>	1

<sup>5</sup> 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 roster arrangements, contact the WCC. During a prolonged response, additional personnel may be sourced through internal resourcing and mutual Aid agreements such as the AMOSC Core Group via [REDACTED]

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Area	Role	Woodside personnel <sup>5</sup>	Key Duties	#
			<ul style="list-style-type: none"> <li>Facilitate the provision of relevant mapping from the PT IMT.</li> <li>Assist in the interpretation of mapping originating from the PT IMT.</li> <li>Facilitate the provision of relevant mapping originating from the DoT IMT to the PT IMT.</li> </ul>	
DoT IMT Intelligence – Environment	Environment Support Officer	Deputy Environment Unit Leader	<ul style="list-style-type: none"> <li>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.</li> <li>Assist in the interpretation of the PT OPEP and relevant TRP plans.</li> <li>Facilitate in requesting, obtaining and interpreting environmental monitoring data originating from the PT IMT.</li> <li>Facilitate the provision of relevant environmental information and advice originating from the DoT IMT to the PT IMT.</li> </ul>	1
DoT IMT Planning-Plans/ Resources	Deputy Planning Officer	Deputy Planning Section Chief	<ul style="list-style-type: none"> <li>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.</li> <li>Facilitate the provision of relevant IAP and sub plans from the PT IMT.</li> <li>Assist in the interpretation of the PT OPEP from the PT.</li> <li>Assist in the interpretation of the PT IAP and sub plans from the PT IMT.</li> <li>Facilitate the provision of relevant IAP and sub plans originating from the DoT IMT to the PT IMT.</li> <li>Assist in the interpretation of the PT existing resource plans.</li> <li>Facilitate the provision of relevant components of the resource sub plan originating from the DoT IMT to the PT IMT.</li> </ul> <p><b>(Note this individual must have intimate knowledge of the relevant PT OPEP and planning processes)</b></p>	1
DoT IMT Public Information-Media/ Community Engagement	Deputy Public Information Officer	Deputy Public Information Officer	<ul style="list-style-type: none"> <li>As part of the Public Information Team, provide a direct liaison between the PT Media team and DoT IMT Media team.</li> <li>Facilitate effective communications and coordination between the PT and DoT media teams.</li> <li>Assist in the release of joint media statements and conduct of joint media briefings.</li> <li>Assist in the release of joint information and warnings through the DoT Information and Warnings team.</li> </ul>	1

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Area	Role	Woodside personnel <sup>5</sup>	Key Duties	#
			<ul style="list-style-type: none"> <li>Offer advice to the DoT Media Coordinator on matters pertaining to PT media policies and procedures.</li> <li>Facilitate effective communications and coordination between the PT and DoT Community Liaison teams.</li> <li>Assist in the conduct of joint community briefings and events.</li> <li>Offer advice to the DoT Community Liaison Coordinator on matters pertaining to the PT community liaison policies and procedures.</li> <li>Facilitate the effective transfer of relevant information obtained from through the Contact Centre to the PT IMT.</li> </ul>	
DoT IMT Logistics	Deputy Logistic Officer	Deputy Logistics Section Chief	<ul style="list-style-type: none"> <li>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.</li> <li>Facilitate the acquisition of appropriate supplies through the PTs existing OSRL, AMOSC and private contract arrangements.</li> <li>Collects Request Forms from DoT to action via PT IMT.</li> </ul> <p><b>(Note this individual must have intimate knowledge of the relevant PT logistics processes and contracts)</b></p>	1
DoT IMT Finance-Accounts/ Financial Monitoring	Deputy Finance Officer	Deputy Finance Section Chief	<ul style="list-style-type: none"> <li>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.</li> <li>Facilitate the communication of financial monitoring information to the PT to allow them to track the overall cost of the response.</li> <li>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.</li> </ul>	1
DoT IMT Operations	Deputy Operations Officer	Deputy Operations Section Chief	<ul style="list-style-type: none"> <li>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.</li> <li>Facilitate effective communications and coordination between the PT Operations Section and the DoT Operations Section.</li> <li>Offer advice to the DoT Operations Officer on matters pertaining to PT incident response procedures and requirements.</li> </ul>	1

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Area	Role	Woodside personnel <sup>5</sup>	Key Duties	#
			<ul style="list-style-type: none"> <li>Identify efficiencies and assist to resolve potential conflicts around resource allocation and simultaneous operations of PT and DoT response efforts.</li> </ul>	
DoT IMT Operations – Waste Management	Deputy Waste Management Coordinator	Deputy Waste Coordinator (Materials)	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Collects Request Forms from DoT to action via PT IMT.</li> </ul>	1
DoT FOB Operations Command	Deputy Division Commander	FOB Deputy Incident Commander	<ul style="list-style-type: none"> <li>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.</li> <li>Provide a direct liaison between the PT FOB and DoT FOB.</li> <li>Facilitate effective communications and coordination between the PT Division Commander and the DoT Division Commander.</li> <li>Offer advice to the DoT Division Commander on matters pertaining to PT incident response policies and procedures.</li> <li>Assist the Safety Coordinator deployed in the FOB in the performance of their duties, particularly as they relate to PT employees or contractors.</li> <li>Offer advice to the Safety Coordinator deployed in the FOB on matters pertaining to PT safety policies and procedures.</li> </ul>	1
<b>Total</b>				<b>11</b>

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## APPENDIX G – DOT LIAISON OFFICER RESOURCES TO WOODSIDE

Once DoT activates a State waters/shorelines IMT, DoT will make available the following roles to Woodside.

Area	DoT Liaison Role	Personnel Sourced from:	Key Duties	#
Woodside CIMT	DoT Liaison Officer (prior to DoT assuming Controlling Agency)/ Deputy Incident Controller – State waters (after DoT assumes Controlling Agency)	DoT	<ul style="list-style-type: none"> <li>Facilitate effective communications between DoT’s SMPC/ Incident Controller and the PT’s appointed CIMT Leader/ Incident Controller.</li> <li>Provide enhanced situational awareness to DoT of the incident and the potential impact on State waters.</li> <li>Assist in the provision of support from DoT to the PT.</li> <li>Facilitate the provision technical advice from DoT to the PT Incident Controller as required.</li> </ul>	1
Woodside CIMT Public Information – Media	DoT Media Liaison Officer	DoT	<ul style="list-style-type: none"> <li>Provide a direct liaison between the PT Media team and DoT IMT Media team.</li> <li>Facilitate effective communications and coordination between the PT and DoT media teams.</li> <li>Assist in the release of joint media statements and conduct of joint media briefings.</li> <li>Assist in the release of joint information and warnings through the DoT Information &amp; Warnings team.</li> <li>Offer advice to the PT Media Coordinator on matters pertaining to DoT and wider Government media policies and procedures.</li> </ul>	1
Total DoT Personnel Initial Requirement to Woodside				2